



November 2006

Business Plan 2005/06 to 2009/10

MAYOR OF LONDON

Transport for London



TfL's corporate mission, objectives and values

Transport for London's (TfL's) mission is 'to provide a world class transport system for London'.

In doing so, TfL 'will be the world's leading transport authority, delivering safe, reliable, integrated transport to all those who live in, work in or visit London'.

To achieve these challenges, TfL focuses on:

Delivery	Delivering quality transport services day after day
Planning and delivering for growth	Not only bringing TfL's infrastructure to a state of good repair, but providing for rising demand, population growth and economic activity
Realising Mayoral and London objectives	Recognising that we have a critical part to play in London's success as a world city, addressing the challenges of economic and population growth in a sustainable and inclusive way
Securing sustainable funding	Working with Government, business, the boroughs and other stakeholders to continue to secure the investment that enables the efficient delivery of our strategy
Bringing London with us	Ensuring that Londoners and all who work in or visit the Capital have confidence in our plans

As an organisation, TfL will continue to deliver through the quality of our people, demonstrating the following values:

Leadership	Challenging ourselves to achieve the highest standards, speaking with the courage of our convictions and being accountable for our actions
Operational excellence	Delivering an integrated transport system through being self disciplined and expressing ourselves clearly and directly
Service	Through being honest and open in our communication, being proactive and driven by the needs of our customers, users and stakeholders
Humanity	Being consistently fair, equitable and inclusive in all our actions with colleagues, customers, users and stakeholders

We will have to work with Government to achieve a good settlement in the 2007 Spending Review – this will enable us to continue the good work begun by our current Investment Programme. We need long-term stability to operate efficiently and plan for the future.

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Commissioner's message



Delivery and determination are words that come to the fore in this Business Plan. In my first Business Plan message, I am delighted to report that TfL's determined approach to improving London's transport system has resulted in a range of goals being delivered within budget over the past two years.

TfL was created in 2000 under the Greater London Authority Act as the integrated body responsible for the Capital's transport system. Chaired by the Mayor, its primary function is to implement his Transport Strategy through its responsibility for the Docklands Light Railway, London Buses, London River Services, Croydon Tramlink, Victoria Coach Station, the Public Carriage Office, Streets and London's Transport Museum. The organisation was doubled in size when London Underground joined in 2003.

In 2004 TfL achieved a groundbreaking agreement with the Government on grant levels and long-term borrowing. This gives us the ability to improve London's transport infrastructure substantially and to borrow

funds to progress major projects, as well as ensuring long-term continuity.

Since then, TfL has made London's transport system more comprehensive, more reliable, faster and accessible, combating decades of under-investment.

One illustration of its success has been a five per cent switch from private car usage to public transport – the first ever modal shift of its kind in a major world city.

Safety on public transport has been enhanced; by CCTV, and by more policing on the Tube, on buses and the rail network in London.

The modernisation of London Buses has been unrelenting. The Capital now has a more efficient, more environmentally friendly and fully accessible fleet. In 2005/06, it carried 1.8 billion passengers. That was the highest number since 1965 and an increase in demand of 40 per cent since 2000, delivering the Government's national bus target in London alone.

Huge investment has also gone into London Underground. This has included work with TfL's infraco partners to refurbish rolling stock and stations and replace lifts and escalators. Services on the Jubilee line in particular have been revolutionised due to the provision of extra trains and carriages that have increased passenger capacity by 17 per cent.

Two key completed infrastructure projects that stand out in terms of enhancing London's position as a world-class city are the DLR City Airport extension and the re-building of Wembley Park station to cope with extra passengers when the stadium re-opens.

TfL has also helped to keep London moving through the introduction of Congestion Charging – implementing a courageous Mayoral policy – and the Oyster card, now Europe’s leading smartcard.

Challenging tasks lie ahead. In November 2007, TfL will take over responsibility from the Department for Transport (DfT) for the Silverlink Metro, which will be rebranded London Overground. This will give TfL the ability to deliver improvements that will begin to revitalise these services along the same lines as the buses and the Tube. These will include additional customer service and security staff, increased Gospel Oak-Barking services from December 2007, Oyster card ticketing, and linking to the East London Line extension in 2010 to form an orbital high-quality railway for London.

Bus expansion (in terms of operated kilometres) is planned to rise by four per cent from 2005/06 to 2009/10, and the iBus project – rolling out from 2007 – will provide a new communications system with better information.

TfL will press the infracos so that the Public Private Partnership (PPP) delivers huge increases in network capacity through a series of line upgrades and station refurbishments. Improving track quality will also continue, as will the accessibility programme. At the same time, the DLR will be further extended and upgraded.

On hearing of the success of the 2012 Olympics bid – which it helped to secure with a pan-London transport plan – TfL has started to implement the Olympic strategy.

In terms of making London a cleaner city, implementation of the Capital-wide Low Emission Zone will take place from 2008 (subject to Mayoral approval) for lorries,

buses, coaches and taxis. A Climate Change Fund is to be created to build upon current initiatives to mitigate the impact of transport related emissions, and trials of hydrogen fuel cell buses will continue. There will be much more to do in this area in the next three years.

Also, from 2007, the Congestion Charging zone will be extended, improving both air quality and congestion.

Road maintenance and renewal will also continue, and a modern traffic signal control system replacing equipment that is more than 30-years-old is planned to start from 2010.

TfL recognises that the transport system is a powerful tool in addressing social exclusion and inequality. At the same time, it is also dedicated to making London a better city for cyclists and pedestrians, as well as being cleaner, greener and safer. In the case of the latter, Mayoral targets for reductions in road casualties have already been exceeded and now it is intended to cut casualties on London’s roads by 50 per cent by 2010 compared with the average between 1994 and 1998.

Together with the Board, I have reviewed this Plan in terms of its deliverability and robustness – and to ensure that we have managed all business pressures in a prudent and responsible manner. This Business Plan – which is balanced and fully funded – sets out TfL’s commitment to a future of further achievement, and I commend it to you.



Peter Hendy
Commissioner
Transport for London

November 2006

Executive summary

Introduction

This document updates the last two Business Plans, which reflected the groundbreaking Spending Review (SR2004) agreement with the Government that innovatively gave TfL a five-year settlement lasting until March 2010. TfL was also allowed, for the first time, to borrow from the financial markets under the new prudential borrowing regime to provide further support for its five-year plan.

Combined with the Mayor's long-term fares strategy of above-inflation increases in fares, this enabled TfL to put in place a range of programmes and projects to enhance London's infrastructure and go a long way towards meeting growth in demand.

Achievements to date include successful implementation of the central congestion zone and the revitalisation of the bus network, including CCTV and step-free access on all vehicles. Substantial investment has been put into modernisation and refurbishment of London Underground (LU) stations, as well as the introduction of the Oyster card.

Key pressures that have been incorporated into the Plan include supporting the delivery of a successful London 2012 Olympics and planning to re-invigorate the London Overground network. Also incorporated – in support of the PPP – are enabling works such as power upgrades and tunnel cooling. In addition, operating costs have had to cater for the sharp increase in energy prices earlier in 2006.

This new Plan, therefore, has taken these factors into account, following a thorough review by management. TfL is ensuring that these issues are handled in a financially prudent manner and within the terms of the

Government settlement of 2004 with the aim of maintaining the organisation's AA credit rating with financial markets. This review also focuses upon TfL's ability to deliver the projects, not just financially but also from TfL's and the market place's physical capacity to resource such schemes.

The Plan includes additional programmes and projects such as: the management of the North London Railway (NLR) concession from November 2007; Oyster validators at National Rail stations from 2008; weekend late running on the Underground; implementation of the Parliament Square 'public spaces' scheme; development of the Tottenham Hale and Victoria Embankment schemes; and further transport policing.

In addition, the Plan ensures that TfL takes account of the Mayor's requirement for a sustainable future that supports the creation of a better quality of life for Londoners. This is being addressed by: supporting sustainable transport (increasing year on year the number of people using public transport, walking or cycling); sustainable procurement; addressing climate change through such actions as purchasing green energy, zero emission bus trials and the creation of a climate change fund to provide pump-priming monies to develop initiatives over and above those currently in the Plan; advancing Equality and Inclusion (E&I) (through creation of step-free access at Underground stations and in TfL's own recruitment policies and behaviours); and establishing safety, health and resilience strategies.

This Business Plan has been constructed with an emphasis on deliverability and a soundness to enable TfL to start to address the transport challenges London faces beyond 2010.

The financial position for the whole five-year period of the settlement, including the actuals for 2005/06, is outlined below.

This Business Plan also puts down a marker in terms of looking to the challenges beyond March 2010 – something that has been taken forward in parallel through another workstream entitled Transport 2025. At a launch meeting with TfL in June 2006, all

stakeholders were asked for feedback on the substantive issues of the future, and, in November, TfL will be responding with a number of proposals.

Achievements and challenges

As it looks to its future challenges, TfL can also look back on a number of substantial

Table 1: Summary of the TfL Business Plan

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Total income	2,880	3,096	3,397	3,597	3,779	16,749
Operating costs	(4,996)	(5,360)	(5,705)	(6,005)	(6,318)	(28,384)
Net operating expenditure	(2,116)	(2,264)	(2,308)	(2,408)	(2,539)	(11,635)
Capital projects (net of over-programming)	(713)	(736)	(1,240)	(1,579)	(1,257)	(5,525)
Third-party funding	175	185	186	220	165	931
Debt service	(10)	(58)	(70)	(106)	(151)	(395)
Contingency	0	(26)	(27)	(28)	(28)	(109)
Net expenditure	(2,664)	(2,899)	(3,459)	(3,901)	(3,810)	(16,733)
Working capital and reserve transfers	(102)	(106)	249	358	372	771
Funding required	(2,766)	(3,005)	(3,210)	(3,543)	(3,438)	(15,962)
Funded by:						
Total transport grant	2,196	2,389	2,598	2,781	2,826	12,790
Precept	20	12	12	12	12	68
Prudential borrowing	550	604	600	750	600	3,104
Total	2,766	3,005	3,210	3,543	3,438	15,962

achievements since 2004, when it successfully negotiated its settlement with the Government, as mentioned earlier. This agreement provided it with the opportunity to improve London's transport infrastructure substantially and to borrow funds to progress major projects, as well as ensuring long-term continuity.

Between 1999 and 2005, the proportion of trips made using public transport in London increased by just over five per cent, rising from 30.4 per cent to 35.6 per cent. Since the 2004 settlement, improvements have included safer conditions on both buses and the Tube. Every bus in the fleet has had CCTV fitted and stations all over the LU network have been given better lighting and additional Help points. At the same time, on-board security on trains has been increased and the number of night bus routes has risen from 57 in 2000 to 100 in 2006.

LU has benefited from a massive improvement programme that has included refurbished District and Waterloo & City lines rolling stock, a seventh car on Jubilee line trains, the replacement of escalators and lifts and the refurbishment of 34 stations. Two outstanding projects brought to fruition in 2006 were the substantial reconstruction of Wembley Park station and, in partnership with DfT, the building of state-of-the-art ticket halls at King's Cross St. Pancras station.

London Buses alone is now in the process of delivering the total Government national target for a greater number of passengers (a 12 per cent increase by 2010 compared with 2000 levels). In 2005/06, the fleet carried 1.8 billion passengers. The high reliability of bus frequencies in 2004/05 was maintained

in 2005/06 with excess waiting time of only 1.1 minutes.

The Docklands Light Railway (DLR) has played a significant role in both the regeneration of East London as a whole and the development of the 2012 Olympic and Paralympic Games infrastructure. Passenger journeys have increased by more than 70 per cent since 1999/00.

Other major improvements have included the opening of the London City Airport extension in December 2005, and delivery of 500km of the London Cycle Network plus (LCN+). At the same time, LU has reduced its station power requirements by 25 per cent against a target of 20 per cent.

The Oyster card, introduced in 2003, is now recognised as Europe's most sophisticated and widely used public transport smartcard, and accounts for more than 60 per cent of the 7.1 million trips made each day on the London transport system.

Also introduced in 2003, Congestion Charging – which operates in part of central London – has led to a 30 per cent reduction in congestion, a 15 per cent fall in traffic levels and a decline in road deaths and injuries, while the number of people cycling in London is now around 450,000 compared with 300,000 in 2001. TfL has also invested extensively in local walking schemes, through the Borough Spending Plans process, to make it easier and safer to be a pedestrian.

London has been very successful in reducing casualties and has met the national target of a 40 per cent reduction already – some five years early. This has been achieved through

a sound understanding of the road safety problem. Many road safety engineering schemes have been introduced on both the Transport for London Road Network (TLRN) and borough roads, including 20mph zones. High quality campaigns have supported these, with particular emphasis on children, cyclists and motorcyclists. In March 2006, the Mayor announced new lower targets calling for a 50 per cent reduction in those killed and seriously injured by 2010.

On another front, better procurement, improved bus operating conditions and shared services in finance and human resources have all played a part in TfL's efficiency drive. Total cumulative savings delivered since the programme was established in 2003 amount to more than £380m.

TfL has demonstrated a track record of delivery over its first six years, and this Plan illustrates the future improvements to come that will build on this, keeping London at the forefront of world-class cities.

Business Plan

Improvements to be delivered in the Plan

Additional projects have been added to the Plan in the past two years as a result of extra income and operating savings. In 2005, TfL included additional projects to support the Olympic Games. These will add to its existing commitments to provide infrastructure and services, particularly in east London. They include:

- DLR to Woolwich Arsenal (opening in 2009)

- DLR from Canning Town to Stratford International (opening in 2009)
- DLR Bank-Lewisham section capacity upgrade (opening in 2009)
- East London Line extension Stage 1, linking Dalston Junction in the north to West Croydon and Crystal Palace in the south (opening in 2010), with the 'Dalston Curve' linking the line to the North London Line to Highbury and Islington and beyond
- Opening of Stage 1A of the East London Transit (Ilford-Thames View Estate) in 2008; and Stage 1 of the Greenwich Waterfront Transit (Abbey Wood-Woolwich-North Greenwich) by 2010

In addition, the October 2004 Plan included the following, which TfL is continuing to deliver:

- The PPP will deliver huge increases in network capacity through a series of line upgrades, including work on the Jubilee line in 2009. Under the PPP contracts, a rolling programme of modernisation or refurbishment of every Underground station is planned
- Piccadilly line to Heathrow Terminal 5 (opening in 2008). The line was re-opened to Terminal 4 in September 2006 following a 20-month closure that was essential for the construction of a new rail junction linking the two terminals. During that period, TfL took the opportunity to refurbish the Terminal 4 station, as well as adding extra security and passenger information features
- All District line trains will be refurbished by 2009, and new trains will be introduced to the Victoria line from 2009

- Increased capacity at King's Cross, including new ticket halls (now open)
- Further bus expansion (in terms of operated km) by four per cent from 2005/06 to 2009/10 (36 per cent over 1999/2000 levels), continuing a 100 per cent accessible fleet¹ with every bus fitted with CCTV
- The iBus project – rolling out from 2007 – will provide a new bus radio and communications system that will give passengers better information
- Extension of the Congestion Charging zone from February 2007
- Completion of 850km of the London Cycle Network plus (LCN+) by 2010
- Area based schemes to provide safe and attractive environments for pedestrians, plus cycle training, cycle parking and access improvements
- Road maintenance and renewal will continue, and bridge and tunnel safety schemes at several locations – including the A40 Hanger Lane – will be completed
- The new single carriageway road at Coulsdon is due to open in January 2007 and construction of the A406 North Circular Road improvement scheme at Bounds Green will begin, subject to planning permission, in 2009
- A modern traffic signal control system replacing equipment that is more than 30-years-old will be deployed, starting in 2010
- The proposed Thames Gateway Bridge (TGB) between Beckton and Thamesmead will help improve accessibility and aid regeneration. Subject to the outcome of a planning inquiry,

construction could begin in 2009 and the bridge would then open in 2013

- Travel Demand Management (TDM) continues to seek to persuade the public to favour sustainable travel

This year TfL continues to maintain a financially balanced plan. It will also incorporate new responsibilities being taken on by TfL, in particular the London Overground and Oyster on National Rail. At the same time, it will continue to incorporate sustainability, accessibility and other Mayoral priorities while maintaining TfL's proven record of delivery. New additions to the Plan include:

- Improvements to the former Silverlink Metro service after TfL takes over the franchise in November 2007. These will include enhanced frequency, improved service and security and, as from late 2008, new trains. The additional policing on the North London Line, introduced in 2006, will be enhanced
- Oyster card ticketing on all National Rail stations in London, starting from 2008
- Implementation of the London-wide Low Emission Zone (LEZ) from 2008 (subject to Mayoral approval) for lorries, buses, coaches and taxis
- Twenty-five per cent of stations to be step free from platform to street by 2010 and 33 per cent by 2013
- Development of the DLR Barking Reach extension to Transport and Works Act powers
- Creation of a climate change fund to mitigate the impact of transport related emissions

- Further trials of hydrogen fuel cell buses
- Implementation of the Parliament Square 'public spaces' scheme
- The continuation of transport policing on bus routes, and the provision of additional British Transport Police on the Underground and on the National Rail network
- All schools to have a Travel Plan by 2009, with funding support from TfL
- Sustainable freight operations are being encouraged through the eight proposals contained in the London Freight Plan, launched in June 2006
- LU timetable changes planned include half-hour later running on Friday and Saturday nights from May 2007, offset by one hour later starts on Saturday mornings, in line with the Mayor's wish to run later weekend trains
- Sutton is the first sustainable Town Centre Scheme. TfL and the borough will work in partnership to encourage people

to walk, cycle and use public transport. They will also pilot other opportunities to reduce congestion

Crossrail

Crossrail – the largest single transport improvement planned in the UK – is being developed via Cross London Rail Links Limited, a 50/50 joint venture between TfL and the DfT. TfL is continuing to promote Crossrail as being vital to London's future and the Government is keeping open the possibility of a contribution to the costs, although a decision will not be taken until after the conclusion of Sir Michael Lyons' review of local government finances.

2012 Olympics

Transport schemes for the 2012 London Olympics are being designed to leave a lasting legacy. In addition to prospects identified in SR2004, the following specific improvements will also support the Olympics:

One significant indicator of TfL's success in altering transport perceptions has been the five per cent switch from private car usage to public transport between 2000 and 2005.

- More DLR trains (there will be a total of 55 over the period of the Business Plan, 22 of which will be dedicated to the Olympics)
- More frequent Underground services throughout the day during the Games, extended hours (05:30 to 02:30) and the potential to provide selective 24-hour running
- Greater resilience to run enhanced service patterns
- West Ham and Prince Regent stations to be upgraded
- An upgrade of the London Traffic Control Centre and Olympic routes in east London
- More frequent bus services to and from Olympic venues
- Improved cycling and walking access for Olympic venues
- Upgrade of North London Line services serving Stratford

Sustainability

The definition of sustainable development, or sustainability, is seen by the Greater London Authority (GLA) as being the creation of a better quality of life for people, both now and in the future.

Specifically, TfL is committed to:

Sustainable transport – Since TfL was formed in 2000, there has been a year-on-year improvement in the number of people using public transport, walking or cycling. This is estimated to have saved 500,000 car

journeys per day and reduced carbon dioxide (CO₂) emissions by 210,000 tonnes per year.

Sustainable procurement – TfL is committed to the highest level of the GLA's Sustainable Procurement Policy. Currently, procurement agents are being helped to identify and incorporate green requirements in future contracts.

Climate change mitigation and adaptation – TfL is addressing climate change through a series of mitigation measures, including the purchase, and continued trialling, of lower or zero-emission buses the purchase of green energy and a number of energy-saving and recycling schemes, alongside the promotion of zero-emission modes of transport such as walking and cycling. In addition, TDM continues to seek to persuade the public to favour sustainable modes of transport, thereby further reducing overall emissions. A climate change fund will be created to pump-prime additional CO₂ reduction measures over and above those already planned. Also, in addition to reducing carbon emissions to mitigate the impact of climate change, adapting to the expected results of climate change will be a key challenge for TfL. One task will be to plan to cope with potential increases in water levels and flooding. Another will be to manage higher temperatures on the Underground.

E&I – TfL recognises that an accessible, safe and reliable transport system is a powerful tool in addressing social exclusion and inequality. It also consults with minority groups so that it can constantly monitor their needs. At the same time, it continues to give priority to creating a workforce that reflects the diversity of London.

Environment – To make sure London is a cleaner, greener city, TfL undertakes a number of actions to improve air quality, cut noise, foster biodiversity and promote reduction, reuse and recycling of waste. More of the TLRN has been surfaced with low-noise material; all new buses will be quieter than the legal limit; much waste has been cut and more recycled and secondary aggregates are being used in major construction projects; and trees have been planted and replanted across the TLRN. Air quality has been improved by the introduction of the cleaner buses mentioned earlier, as well as operation of the Congestion Charge and the funding of borough air quality improvements.

Safety – Targets for reductions in road casualties have been exceeded, having fallen by 40 per cent compared with the mid-to-late 1990s. Consequently, the Mayor's new challenge is to cut the number of people killed or seriously injured by 50 per cent by 2010 compared with the average during the 1994–98 period.

Health – TfL's continued efforts to minimise air pollutants will benefit public health. On the corporate front, in 2004/05 it brought in a Health Improvement Plan for LU staff, which, over time, will be rolled out across the rest of TfL.

Resilience – Security arrangements have been strengthened to combat terrorism and fight crime. This includes TfL's continued focus on policing across the Underground and DLR as well as maintaining high levels of dedicated

policing on the bus and road network. TfL has voluntarily adopted Section 17 of the Crime and Disorder Act and explicitly considers the impact of its activities on community safety.

Mainstreaming – Delivery of sustainable development requires that mechanisms are in place to support the prioritising of projects and programmes that deliver integrated economic, social and environmental benefits. TfL is developing plans to embed sustainability into planning, projects and operations in both a comprehensive and coherent manner.

Outcomes

The Business Plan shows that targets have been achieved and TfL is on course to meet those coming up in the future. The cost of operations – and the Investment Programme – is fully met from income, grants, secondary income, precept and prudential borrowing. More importantly, recurring income exceeds recurring costs, thus assuring that TfL has a balanced plan on a continuing basis.

The Plan published in November 2005 always assumed that reserves would be built up early in the Plan period to be drawn down by 2009/10. With increased income, reduced operating costs and some capital underspends in previous years, reserves have increased. They are now to be used to fund new TfL responsibilities and increased investment, including London Overground, LU power and spending on tunnel cooling.





Background and context



This document outlines the improvements that TfL plans for the period to 2009/10, the remaining years covered by the five-year funding settlement awarded to TfL by the Government in July 2004.

1.1 This document outlines the improvements that TfL plans for the period to 2009/10, the remaining years covered by the five-year funding settlement awarded to TfL by the Government in July 2004. It also takes account of new responsibilities given to, or adopted by, TfL since the last Business Plan was published in November 2005. In parallel to this, discussions are being held with the DfT on post 2009/10 funding within the Government's 2007 Comprehensive Spending Review process.

1.2 The Business Plan remains fully funded. Costs of operations and investment are met by a combination of fares, charges, Government grants, borrowing and secondary income (such as that gained from hiring out advertising sites).

TfL's role

1.3 TfL runs the DLR, London Buses, London River Services, Croydon Tramlink, Victoria Coach Station, the Public Carriage Office, Streets and London's Transport Museum. The organisation was doubled in size when LU joined in 2003.

1.4 An additional task is the maintenance of 4,700 sets of traffic signals; and, together with the 33 London boroughs, it manages the remainder of the road network and traffic flow.

1.5 National Rail services in London are not TfL's responsibility, although it continues to work positively with

Network Rail, the Government and the operators to improve all rail services within the Capital. However, the Railways Act 2005 provided a basis to allow TfL to secure more control over rail services in London and, as a start, it will take over the responsibility of Silverlink Metro services from November 2007. Additionally, the Government will be announcing changes to the Mayor's powers in respect of National Rail.

Overall transport vision

1.6 Vision and investment in transport support the Mayor's overall objectives, which are as follows:²

- To make London an exemplary world capital in terms of mitigating and adapting to climate changes and turning it into a more attractive, well-designed and green city
- To accommodate growth within its boundaries without encroaching on open spaces
- To make it a healthier and better city for people to live in
- To make it more prosperous based on strong, long-term economic growth
- To promote social inclusion and tackle deprivation and discrimination
- To improve accessibility to London

1.7 Since 1991, London's population has been growing and this is expected to continue, as illustrated in Figure 1.³

1.8 Population and employment growth in and around London will create a big increase in

2 See the Mayor's London Plan at: www.london.gov.uk/mayor/planning/strategy.jsp

3 Source: GLA population forecasts, SDS Technical Report 23

the need for public transport. Travel is expected to rise from 27.2 million trips a day in 2005 to 30.9 million by 2025.

1.9 London has the UK's highest productivity rating, with a GDP valued at £160bn a year. It is also the only part of the UK economy that matches US levels of productivity – giving Britain its international competitive edge. Therefore, the UK's long-term success is inextricably linked to the need to preserve London's global standing.

Broad objectives for London's transport network

1.10 The longer-term vision for transport is being developed as part of the Transport 2025 project. In June 2006, TfL outlined the long-term challenges facing London and sought stakeholders' views. The longer-term view for

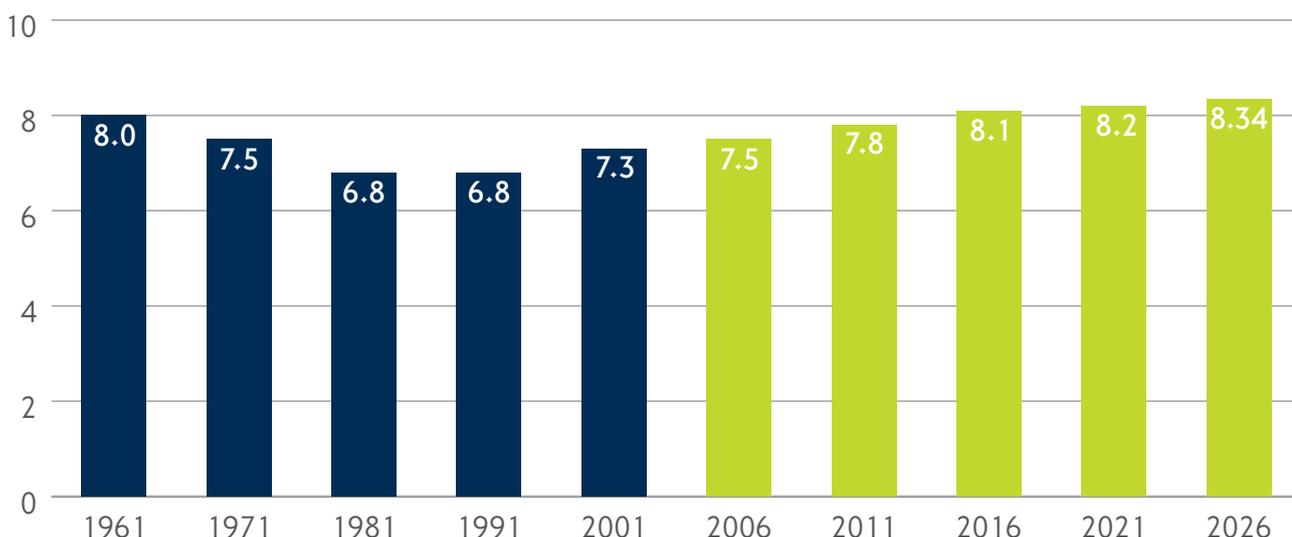
transport will be launched in November 2006. The three broad objectives for London's transport network are:

- Supporting the economy
- Tackling climate change and enhancing the environment
- Improving social inclusion

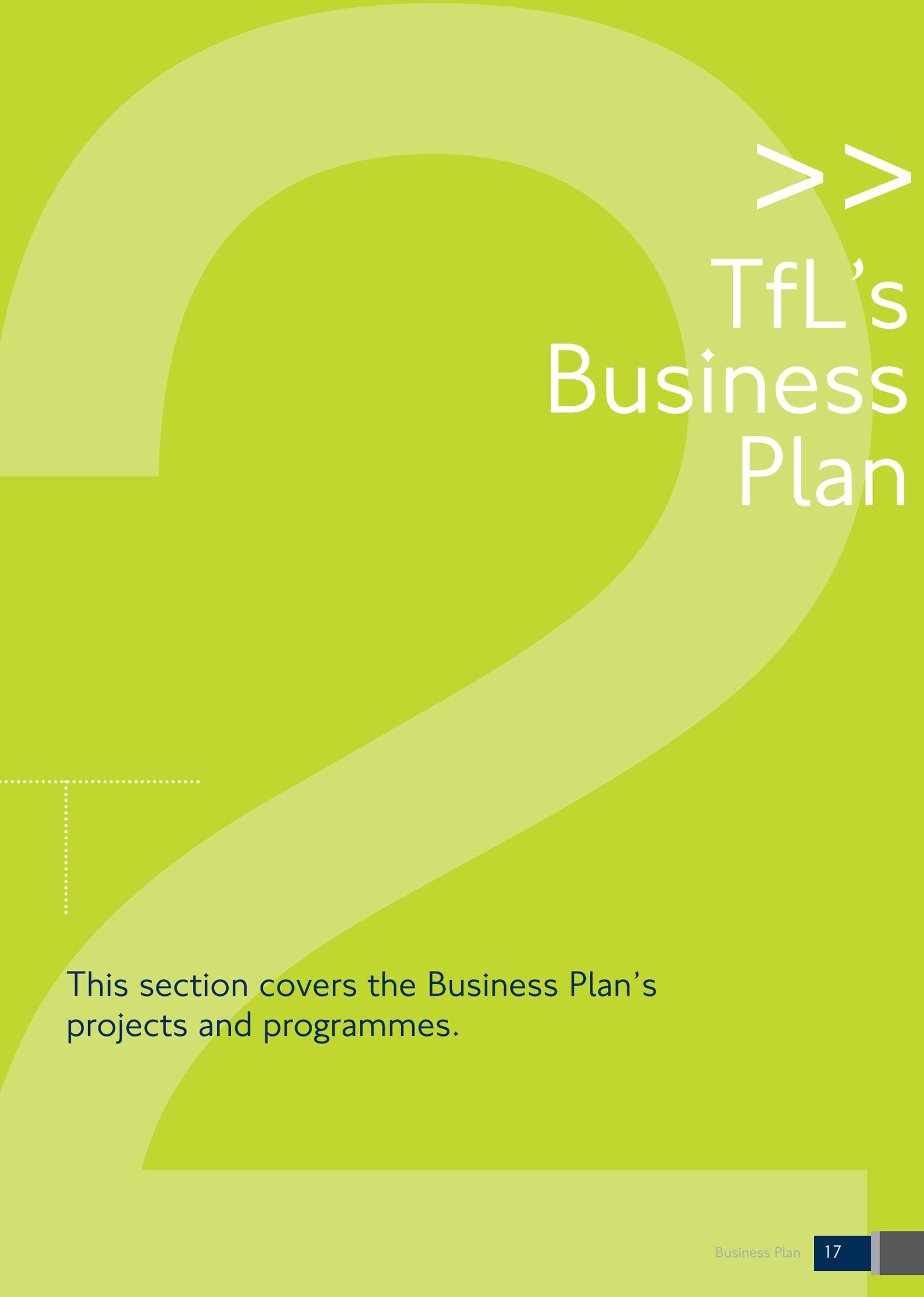
London boroughs' Local Implementation Plans

1.11 The boroughs' role in delivering transport improvements is very important. They manage 95 per cent of the Capital's roads and play a major part in encouraging walking and cycling. Each borough's transport aims are set out in detail in Local Implementation Plans (LIPs). The first three approved by the Mayor were for Kingston, Camden, and Hammersmith and Fulham. It is expected that nearly all LIPs will be approved by the end of 2006.

Figure 1: London population growth projections to 2026







TfL's Business Plan



This section covers the Business Plan's projects and programmes.

TfL's operations, projects and programmes cover a wide range of activities. Table 2 (below) shows some of the key initiatives highlighted in this Business Plan and

summarises their contribution to the overall transport network objectives of supporting the economy, tackling climate change and improving social inclusion.

Table 2: TfL operations, projects and programmes

Project or programme	Supporting the economy	Tackling climate change	Improving social inclusion
Silverlink Metro	●	●	●
East London Line extension	●	●	●
LU line upgrades	●	●	●
LU accessibility			●
Crossrail	●	●	●
DLR extensions and capacity upgrade	●	●	●
Buses	●	●	●
Walking	●	●	●
Cycling	●	●	
Local Area Schemes	●	●	●
Door-to-door transport	●		●
Travel Demand Management	●	●	●
Freight	●	●	
Trams and transit schemes	●	●	●
Congestion Charging	●	●	
Road safety			●
Road improvements	●		
Managing the road network	●	●	
River Services	●		
Coach Services	●	●	
Transport policing			●

Improving the rail and Underground network

Silverlink Metro (to be known as London Overground)

- 2.1 In February 2006, the Government announced that TfL will, in 2007, take over responsibility from the DfT for the Silverlink Metro (to be known together with the East London Line as London Overground). The Overground also includes the North London Line, the London Euston-Watford Junction local line, the West London line from Willesden Junction to Clapham Junction via Kensington Olympia and the Gospel Oak-Barking line.
- 2.2 This will give TfL the ability to deliver more frequent, reliable and higher quality rail services. It will also make the Overground a vital part of TfL's integrated transport network, and help towards providing sufficient capacity on those rail routes needed for the 2012 Olympics.

2.3 Overground passengers will see improvements soon after TfL's takeover, including:

- Additional staff and facilities to improve customer service and security
- Sustained higher levels of dedicated transport policing
- Oyster card ticketing
- Increased Gospel Oak to Barking services from December 2007
- New trains from 2009
- Longer-term improvements will provide increased frequency on all lines and a station upgrade programme

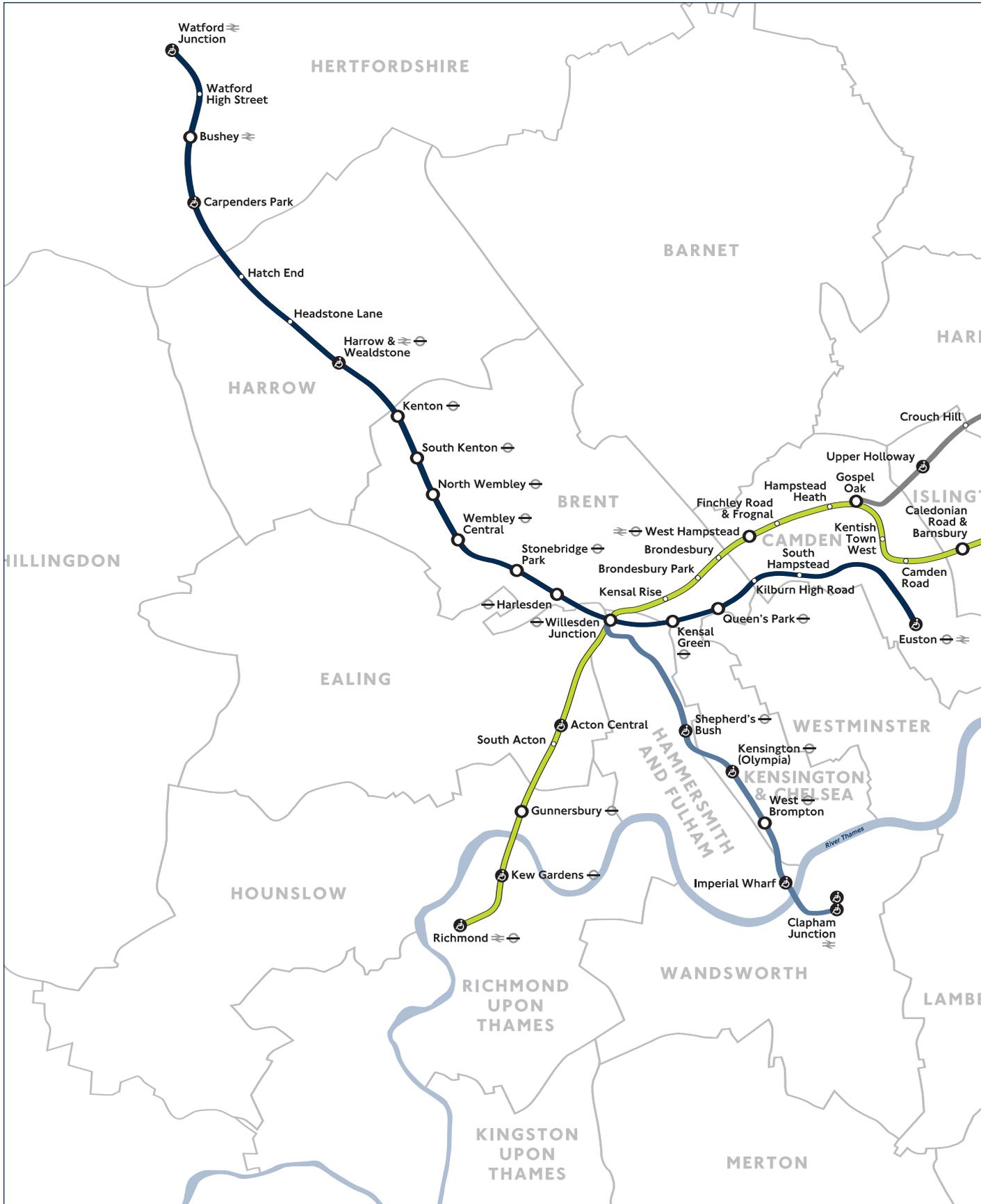
East London Line extension

2.4 The extension of the East London Line between Dalston Junction, West Croydon and Crystal Palace will open in 2010 and play a key role in helping towards the regeneration of some of London's poorest areas. Construction

Table 3: North London Railway and East London Line extension capital expenditure

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Overground new trains	0	28	57	81	49	215
NLR infrastructure upgrade	0	5	25	84	108	221
East London Line extension	44	96	282	393	137	952
Total	44	129	364	558	293	1,388

Figure 2: Overground map 2010





has started on bridge replacements, bridge and viaduct refurbishment and general works. As part of the NLR upgrade, TfL will extend East London Line services through Highbury and Islington by re-opening the Dalston Curve, integrating with NLR services.

Funding National Rail improvements

- 2.5 TfL is working in partnership with train operating companies to increase services on the National Rail network in London by currently supporting more than 150 NLR services each week, as well as late night services on New Year's Eve across London.
- 2.6 TfL has invested in security improvements across London's rail network. By March 2006, 53 per cent of stations (161 out of 304) had been fitted with new CCTV cameras, Help points, better lighting and enhanced travel information screens. Further service and station enhancements are under consideration.

London Underground

- 2.7 LU is transforming the Tube to overcome an asset backlog, deliver more capacity and meet the Mayor's vision for London, while keeping London moving day in, day out. In this regard, it has delivered a number of recent improvements, including:
- A seventh carriage for all Jubilee line trains (from December 2005),

increasing capacity by a further 3,000 passengers every morning and evening during peak hours; and an extra 30 per cent increase in capacity on the Waterloo & City line in September 2006

- Over the past three years the PPP has delivered 75km of new track, 74 lift and escalator refurbishments, 34 station upgrades and improved Central and Victoria line journey time capability, albeit not as fast as the contracts demanded
- A new ticket hall at King's Cross station (which opened in May 2006) to support future Eurostar and Kent commuting, as well as the Olympics
- A new, more capacious Wembley Park station (which opened in March 2006)

LU recorded an overall customer satisfaction score of 78 points out of 100 in 2004/05. This was up from 76 in 2003/04, and was its highest annual score since recording began in 1990/91. LU was also named Train Operator of the Year and the Central line was named Best London Suburban Operator at the Rail Industry Awards in 2006.

Line upgrades

- 2.8 The PPP is to deliver significant increases in network capability to boost peak services through a series of line upgrades. Solutions will be different for each line, but will generally involve improvements to one or more of the following:

- Rolling stock, depots and sidings
- Signalling, service control and regulation
- Track and other infrastructure
- Power supply

2.9 By 2009, Jubilee line capacity will have been increased by an extra 31 per cent on top of the additional 17 per cent achieved in 2005.⁴ Across the Tube network, the line upgrades will deliver an extra 25 per cent train service capacity by 2016.

New and refurbished trains

2.10 The first refurbished District line trains entered service in 2006, with work to be complete in 2009. The remodelled trains now feature interior and side exterior destination indicator displays, next-station audio and visual announcements, improved ventilation and priority seating. Waterloo & City line trains were refurbished as part of an upgrade completed in September 2006.

2.11 New trains will be introduced on the Victoria line from late 2009 as part of a line upgrade. They will include accessibility improvements such as designated wheelchair spaces, audio announcements and better ventilation. Also, wider doors throughout and extra doors in the middle carriages will make it easier to board and get off the trains. A mock-up of a carriage was shown to the public at an exhibition in August 2006 (see photo on page 24). The first new Metropolitan line trains will be introduced in 2009.

Accessibility

2.12 LU is committed to delivering step-free access from platform to street at 25 per cent of its stations by 2010 and 33 per cent by 2013. Forty-six stations are already step-free and the additional ones will come about through a combination of PPP obligations, as part of other schemes (eg King's Cross), the building of new stations (Heathrow Terminal 5 and White City) and a directly funded programme devoted solely to step-free work.

2.13 The 33 per cent of step-free stations will form a Foundation Network, which will allow passengers to reach any Zone 1 station by a single accessible Tube journey or a single accessible bus journey.

The Foundation Network – which will allow 21 per cent of all possible journeys to be step-free – was determined by taking account of:

- The number of mobility-impaired people who use particular stations
- The increase in the number of step-free journeys that each station would facilitate and their importance to mobility-impaired passengers, taking into consideration such factors as local shops and hospitals
- The 'benefits per pound' for each station if made step-free

The Waterloo & City line upgrade, to be completed in 2007, includes platform humps, allowing level access between one part of the platform and the trains.

⁴ Capacity increases are all measured against a 2002 base



METRONET

Stay cool in the heat

EUSTON

Keep clear of the doors

UNDERGROUND

Station enhancements and congestion relief projects

2.14 The line upgrades mentioned earlier will provide a 25 per cent increase in train capacity to cope with future demand. However, to deliver full customer benefit, there are five stations where congestion must be tackled:

- King's Cross, one of the busiest stations on the network, is approaching capacity in the morning peak period, and demand will grow because of the introduction of new international and domestic services upon completion of the Channel Tunnel Rail Link
- Victoria suffers from severe congestion that must be alleviated to allow the station to utilise fully the extra capability it will have when the Victoria line is upgraded
- Paddington Hammersmith & City – the Hammersmith & City line upgrade will double the Paddington to Hammersmith service frequency; and there will also be significant population growth in the area over the next few years
- Tottenham Court Road has limited entry and capacity, especially during the afternoon peak period. Without congestion relief, there is a high risk of Central and Northern line trains frequently having to avoid stopping at the station, which is a key interchange
- Bank is a leading interchange between the Northern and Central

lines and the DLR. It now faces increased congestion because of growth in the number of passengers for the City, the upgrade of the Waterloo & City line and the additional vehicle added to DLR trains. Capacity is particularly limited on Northern line platforms and this increases the risk of trains having to avoid stopping at them, which would cause major disruption

King's Cross will be completed in 2009. At the other stations work required will be completed after 2009/10.

2.15 There are also important station works to be carried out at three other locations:

- Covent Garden needs short-term attention to improve the flow of customers in its ticket hall area, including extra ticket gates at the exit. This will be remedied by 2008 and will enable the station to stay open for seven days a week in normal conditions
- Shepherd's Bush capacity enhancements, including a redeveloped ticket hall and a new Hammersmith & City line station at White City, both opening in 2008, to serve the Westfield retail and leisure development (a new National Rail station at Shepherds Bush is also proposed – see figure 2)
- Vauxhall needs a third escalator and an upgraded ticket hall to complement bus/National Rail interchange improvements, planned for completion in 2011

The PPP contract requires the modernisation or refurbishment of all Underground stations on a rolling seven-and-a-half year programme. This will keep stations in a state of good repair and ensure minimum standards are maintained.

Increased services

2.16 Timetable changes proposed include provision for half-hour later running on Friday and Saturday nights from May 2007 onwards, offset by one hour later starts on Saturdays. This is in line with the Mayor's wish to provide later weekend trains. Other timetable improvements include increased off-peak Central and Bakerloo line services from late 2006, more off-peak Victoria and Jubilee line trains in 2007, and increased services when the line upgrades are completed.

Policing the Underground

2.17 The British Transport Police and the Metropolitan Police have stepped up their high-visibility policing patrols and other measures to combat terrorism. Particular attention is being paid to stations, which are also being provided with better lighting and other security aids. The whole question of increased security is very important to the Mayor, and section 3.49 gives more details about policing across the entire transport system.

Track and infrastructure

2.18 Around 30km of track was replaced over the past year, and another 38km should be renewed in 2006/07. By 2010, the condition of all track assets will have been fully surveyed and around 280km will have been

Table 4: London Underground expenditure

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Operations	620	666	680	695	713	3,374
PFI	203	212	215	218	221	1,069
PPP	1,188	1,259	1,327	1,389	1,564	6,727
Central Services	162	194	239	251	263	1,109
Capital (net of third party)	183	128	319	430	705	1,765
Other costs	231	265	233	237	253	1,219
Total	2,587	2,724	3,013	3,221	3,719	15,264

completely renewed, especially those sections in the poorest condition. The new track will be more reliable, reducing journey times because higher speeds will be possible and provide a more comfortable ride.

- 2.19 Train staff accommodation is being upgraded to meet current and future needs, together with a programme to address equality (eg adequate provision of facilities for women).
- 2.20 The installation of a new, modern communications network is underway, provided through the Connect Private Finance Initiative (PFI) contract. This new radio system has been introduced on the East London and District lines in 2006, and it is proposed to roll it out across the network during 2006 and 2007.
- 2.21 High temperatures across the network are one of the biggest challenges facing LU. Details of the work proposed are in section 3.17.

Extension to Heathrow Terminal 5

- 2.22 Heathrow Terminal 5 is due to open in 2008 in tandem with an extension of the Piccadilly line. The extension is expected to serve three million customers a year by 2010, and will make a significant contribution to BAA's target of having 50 per cent of passengers arrive by public transport. Most of the costs of the extension will be borne by BAA. Significant progress has been made, including completion of the station box.

Crossrail

- 2.23 The Crossrail project is the largest single transport improvement proposed in the UK and, once completed, will provide half of London's requirement for new transport capacity. It will offer direct journeys from Heathrow and Maidenhead in the west to Shenfield and Abbey Wood in the east, providing a train capable of carrying up to 1,100 people every two-and-a-half minutes between Paddington and Liverpool Street during the rush hour.
- 2.24 Crossrail will also:
- Support the continuing development of London as a world-class city, and its role as Europe's key financial centre
 - Support economic growth and regeneration
 - Reduce overcrowding on existing National Rail and Underground networks
 - Enhance the development of a network of strategic interchanges

Crossrail is being developed via Cross London Rail Links Limited, a 50/50 joint venture between TfL and the DfT, and Crossrail has funding outside this Plan to develop the project through the Bill process. A Bill is currently going through Parliament, and petitions have been considered by a Select Committee.

Docklands Light Railway

- 2.25 DLR's operation is franchised to Serco Docklands. This was renewed in 2006 to

operate until 2013. The railway has an important role in the regeneration of Docklands and the surrounding area, and as part of the transport required for the 2012 Olympic and Paralympic Games.

2.26 The DLR extension to London City Airport and King George V opened in December 2005, and two million passengers had used it by the end of September 2006.

2.27 DLR is also developing improvements to the immediate environs around DLR stations through the 'Yourailway' programme. Improved lighting, signage, security and streetscape changes will be implemented. Shadwell and Poplar stations will benefit first from the programme.

2.28 The following further extensions and capacity enhancements are proposed, or under construction, each having been developed in partnership with local authorities, agencies and others committed to sustainable regeneration:

- Extension from King George V under the river to Woolwich Arsenal (under construction and due to open in 2009)
- Stratford station – a second platform on the line from Bow Church (under construction and planned to open in 2007)
- Extension from Canning Town to Stratford International, using the infrastructure of the North London Line south of Stratford (planned to open in 2010)
- Capacity upgrade for three-car trains on the Bank-Canary Wharf-Lewisham section (completion planned in 2009) and on the Stratford-Poplar section (completion planned in 2010)
- Remodelling to enhance capacity at Delta Junction (north of West India Quay) and Prince Regent station at the ExCel Centre, an Olympic venue (completion planned in 2011)
- An additional 55 railcars are being built and all will be in service

Table 5: Docklands Light Railway capital expenditure

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
3-car upgrade	3	10	83	91	26	212
Woolwich Arsenal	13	1	7	8	-7	21
Stratford International	0	4	53	67	62	186
Other DLR	24	32	30	42	31	159
Total	39	48	173	207	112	579

by 2010 to support Olympic transport requirements

- Powers will be sought for an extension to Barking Reach

Better bus services

2.29 London Buses has been transformed over the past six years. From December 2005, the whole fleet was low-floor, wheelchair accessible and with in-vehicle CCTV.⁵ The record-breaking high standards of reliability achieved in 2004/05 were maintained in 2005/06 with excess waiting time at a low of 1.1 minutes.

2.30 Network expansion has included more orbital and night buses. More than two thirds of bus routes now operate on a high-frequency basis (at least five buses an hour), and there are more than 100 routes operating on a 24-hour basis. Buses are the main public transport option for many outer London journeys, more than half of which are wholly outside Zones 1 and 2.⁶ Between 2005/06 and 2009/10, bus services will expand by a further

four per cent (as measured by operated kilometres).

2.31 Improvements are being made to bus stations to provide extra accessibility and space, including Golders Green. Brentford bus garage's lease is to be purchased to secure its future. The replacement of bus shelters will continue and, by 2010, there will be 5,000 solar-powered illuminated bus stops (London already has more than anywhere else in Europe).

2.32 The iBus project will provide a new radio and communications link between all of London's 8,000 buses and a central control system, fitted with 'automatic vehicle location'. This has a further link to the real-time Countdown information system. Enhanced on-bus visual displays and audio announcements will also be provided and will particularly benefit disabled passengers, infrequent travellers or those facing language barriers.

2.33 The iBus roll out will occur between 2007 and 2009, and will run in parallel with the existing system. It is intended

Table 6: Buses and bus priority expenditure

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Bus network costs	1,391	1,485	1,592	1,693	1,788	7,949
Other buses	140	142	168	155	129	734
Bus priority	46	48	53	54	45	246
Total costs	1,577	1,674	1,813	1,902	1,963	8,929

5 Except for buses on heritage routes

6 Source: London Travel Report 2005

that, by the end of 2009, a further 2,000 Countdown signs will be installed. There will also be experiments to see if CentreComm (London Buses central communications centre) can gain remote access to on-bus CCTV systems.

2.34 Since TfL was formed there has been extra policing on the transport network through the Transport Operational Command Unit of the Metropolitan Police (funded by TfL). TfL is also using powers granted in 2006 to apply for antisocial behaviour orders (ASBOs), if needed.

London, published in February 2004. Schemes scheduled for the TLRN and borough roads will continue to provide safe and attractive environments for pedestrians. New crossings, crossing upgrades and widened footpaths will encourage more walking, which contributes towards wider Mayoral objectives, including health, inclusion and economic growth. A consultation exercise regarding maps and signage for walkers resulted in a report entitled 'Legible London', which is currently being reviewed by the boroughs. However, maps have already been produced at both borough and regional partnership level.

Enabling local journeys

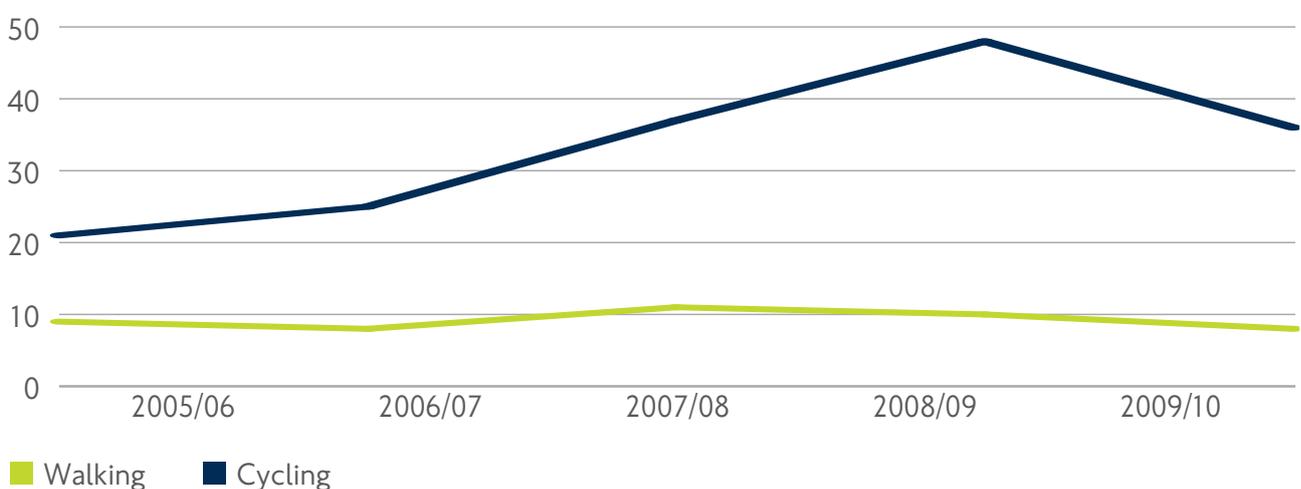
Walking

2.35 TfL aims to make London one of the most walking-friendly cities in the world by 2015, as set out in Making London a Walkable City – the Walking Plan for

Cycling

2.36 To generate interest in cycling, TfL is supporting the Tour de France in July 2007. The premier event in the professional cycling calendar is to set off on Le Grand Départ from London.

Figure 4: Walking and cycling expenditure



2.37 TfL is supporting a Mass Participation Bike Ride in September 2007. This will be the first of the Tour de France 'legacy' events.

2.38 Cycling initiatives delivered by TfL and the London boroughs – designed to create and sustain an environment that will increase the attractiveness of cycling as an option – have been planned with the aim of achieving an 80 per cent rise in the number of cycling trips by 2010, compared with 2000.

These include:

- Further development of the LCN+. It is estimated that 850km of the network (more than 90 per cent) will be completed by 2009/10, with the remaining 50km to be completed in 2010/11
- Cycle training for Year 5 and 6 school children
- Expansion of cycle parking at schools and stations
- Green corridor cycle routes through parks and alongside rivers

- Access improvements for cyclists (such as one-way streets being two-way for cyclists)

Local Area Schemes

2.39 TfL is to continue to support a number of Local Area Schemes devised by boroughs, including:

- Town centre schemes
- 'Streets for People' (improvements in residential areas)
- Station access (improved public transport interchanges)

2.40 An example of one of these schemes is The Cut at Waterloo, where pedestrian access is being improved. Other overall improvements include better lighting, tree planting and better traffic management.

Door-to-door transport

2.41 A current review is considering how door-to-door transport provision could be improved across London. This service for older or mobility-impaired

Cycling initiatives delivered by TfL and the London boroughs have been planned with the aim of achieving an 80 per cent rise in the number of cycling trips by 2010, compared with 2000.

people includes Dial-a-Ride and the boroughs' Taxicard scheme, both backed by TfL and Capital Call. New Dial-a-Ride vehicles are being introduced: 112 were in service by March 2006 and a further 38 vehicles will be renewed by 2007. These vehicles now have better suspension, more space and electric swivelling seats so that passengers no longer have to negotiate steps. Additional support for door-to-door transport of £25m over the three years to 2009/10 has been added to the Plan, pending the outcome of the review.

School travel plans

- 2.42 In a bid to reduce children's fears about road dangers, or anything else that may prevent them from choosing a form of sustainable travel, it is proposed that every school should have a travel plan by 2009. TfL provides funding for school travel plans to the London boroughs.

Travel Demand Management

- 2.43 TDM programmes seek to persuade the public to favour sustainable travel. The first Sustainable Town Centre Scheme (for the years 2006 to 2009) is now underway in Sutton. The borough is working in partnership with TfL to encourage people to walk, cycle and use public transport in line with the Mayor's Transport Strategy. This pilot will also explore other opportunities to reduce congestion, such as the expansion of car clubs and a cycle-hire scheme.

2.44 Further studies will focus on:

- The continuing development of workplace travel plans, including promoting the benefits of teleworking and teleconferencing
- Raising awareness of the alternatives to ingrained travel behaviours
- Car sharing
- Personalised travel planning (a pilot programme is intended for 2007/08)

Sustainable freight operations

- 2.45 The London Freight Plan, launched in June 2006, contains eight key proposals.⁷ These include encouraging best practice, improving reliability and promoting sustainable distribution. The plan also describes how TfL intends to work with the freight industry to improve efficiency while reducing the negative environmental impact of freight activity.

Interchanges

- 2.46 Stratford station is an important interchange and will be a key hub for the Olympics. Major local developments in the area are planned. An extra platform on the DLR (on the existing route to Bow Church, Poplar and Canary Wharf) will open in 2007, and, subject to funding and agreement with all relevant parties, further improvements to the station will include:
- A new northern ticket hall, with connections to western subways and to the central subway
 - Re-opening of the eastern subway

- New lifts and additional staircases from platforms to the western subway
- A relocated, wider Central line westbound platform

There will also be a programme of enhancements at other interchanges – including Ealing Broadway and Clapham Junction – across London. This will provide better signage and upgraded facilities for pedestrians.

Transit schemes

2.47 Two bus-based transit schemes in the Thames Gateway are included in the Plan:

- East London Transit – phase 1A is about upgrading the Ilford-Barking-Thamesview Estate corridor by providing new buses, high levels of bus priority and improved stops. There will also be new bus access to Barking town centre and the corridor will be extended from the Thamesview Estate to Dagenham Dock. East London Transit is due to start operations in early 2008
- Greenwich Waterfront Transit – phase 1 will consist of upgrading the Abbey Wood-Thamesmead-Woolwich- North Greenwich corridor with high levels of bus priority, new sections of bus-way and improved access to Woolwich town centre. Greenwich Waterfront Transit service is due to come on stream in 2010

Additional phases of both schemes are under development (construction is subject to funding being available).

The proposed Thames Gateway Bridge (see section 2.62) will include dedicated public transport lanes linking these systems and providing the ability to make cross-river journeys by public transport.

2.48 On the tram front, powers will be sought for the West London Tram and for an extension of the Croydon Tramlink to Crystal Palace. Both projects, and further extensions to the Croydon Tramlink, will be subject to consultation and funding becoming available. Development work will also take place on the proposed Oxford Street tram.

Urban design policy

2.49 TfL believes that integration of its projects through quality urban design will benefit its customers and London as a whole, and will work in partnership to help deliver improved urban design and streetscape. Partners in this include Design for London (to be established between 2007 and 2008) and the rest of the GLA family, in particular the London Development Agency and the GLA's architecture and urbanism and planning units. Further information about TfL's actions to improve the built environment is contained in section 3.38.

Managing the road network

2.50 TLRN is the 580km road network managed by TfL. It comprises around five per cent of London's roads but carries around a third of all the Capital's traffic. The boroughs manage the other 95 per cent of the road network.

- 2.51 A holistic approach to delivery of programmes across the road network is being encouraged on a corridor management basis. Road safety and bus priority improvements are an integral part of the maintenance, renewal and other schemes planned.
- 2.52 Road maintenance and capital renewal will continue on the TLRN, and TfL will provide funding for capital works and bridge strengthening on the Borough Principal Road Network (BPRN). Condition and other road performance outcomes are shown in section 4.

Low Emission Zone

- 2.53 In July 2006 the Mayor announced that he wished to proceed with an LEZ by 2008. This would mean that heavy goods vehicles (HGVs), light goods vehicles (LGVs), buses, coaches and taxis would have to comply with a certain emission standard in order to travel in London without charge. This is further to TfL's separate activities to ensure that buses and taxis are also compliant.

The proposed EU-based emission standards would be:

- For 2008, Euro III for particulate matter (PM₁₀) for HGVs, coaches and buses with the standards applying to LGVs by 2010
- For 2012, Euro IV for particulate matter (PM₁₀) for HGVs, buses and coaches

Congestion Charging (including western extension)

- 2.54 The central London Congestion Charge, introduced in February 2003, has reduced congestion within the zone by up to 30 per cent. Based on the need to reduce congestion in other parts of central London, the scheme is being extended westward to cover most of Westminster and the Royal Borough of Kensington and Chelsea. The extended zone, which will operate as a single zone, will become operational in February 2007.
- 2.55 Several measures introduced over the past two years to make the process of paying the Congestion Charge easier will continue. These include:
- Lowering the fleet scheme threshold from 25 vehicles to 10, thereby giving the discount benefit to operators with smaller fleets
 - Ability to pay the charge the next day
 - Discount for monthly or annual charges
 - Improvements to the discount application for residents and blue badge holders
 - Introducing more than 100 PayPoint outlets at petrol stations

Bridges and tunnel safety schemes

- 2.56 Bridges over rail lines on the A406 at Hanger Lane and A40 Western Avenue are to be replaced and the A316 Country Way elevated structures are to be repaired and refurbished (all the works are due to be completed in 2009).

Work on the Blackwall Tunnel northbound will increase safety by improving lighting, fire detection and emergency procedures (works are due to start in 2007 with completion in 2009). Also planned are girder replacement work at Westminster Bridge and waterproofing deck renewal at Lambeth Bridge.

Road safety

2.57 London leads the UK and Europe in reducing road casualties, having met its road safety targets four years early. The number of people killed or seriously injured on the Capital's roads has fallen from 6,016 in 2001 to 3,650 in 2005 – a fall of 39 per cent. The number of children killed and seriously injured has dropped from 717 in 2001 to 355 in 2005 – a 50 per cent reduction. These results show that TfL's safety activities – including award-winning advertising campaigns – along with those of the boroughs and the police are proving effective.

2.58 Table 7 shows road expenditure proposed, including road safety. This success has resulted in new higher targets – above those set nationally – being set by the Mayor between now and 2010 (detailed in section 3.46).

Improvement schemes

2.59 The new single carriageway road on the A23 at Coulsdon is due to be completed in January 2007, with new facilities for buses and cyclists, improved access to Smitham station, and the dispersement of around 80 per cent of traffic from Coulsdon town centre.

2.60 An upgrade of the A206 in Thames Road, Bexley, will be part funded by TfL and grants from the Department for Communities and Local Government. This 1.8km stretch of dual carriageway will support regeneration of the area and improve access for freight and servicing for a number of industrial areas in Bexley.

Table 7: Roads expenditure

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Road safety	62	54	55	56	49	276
Route improvements/ safety enhancements	59	50	62	84	52	307
Road maintenance and renewal	215	157	141	137	130	779
Total	336	261	258	277	230	1,362



- 2.61 A scheme for the A406 North Circular Road at Bounds Green will provide two lanes for traffic in each direction, and improvements for buses, cyclists and pedestrians (subject to planning permission). Construction will begin in 2009 with completion set for 2011. A public realm improvement scheme for Parliament Square will be completed by 2010/11 subject to consultation.
- 2.62 Road improvement schemes are to be designed for Tottenham Hale and Victoria Embankment Gardens. Implementation will be subject to funding and outside the Business Plan period.

Thames Gateway Bridge

- 2.63 The proposed Thames Gateway Bridge will cross the Thames at Gallions Reach, connecting Beckton, in the borough of Newham, to Thamesmead, in the borough of Greenwich, with two segregated and dedicated public transport lanes and separate lanes for pedestrians and cyclists. The plan is that it should join existing dual carriageways on the north side (the A406 North Circular and A13 at their junction with the A1020 in Royal Docks Road) with an existing dual carriageway on the south (the A2016 Eastern and Western Way). New approach roads will be built to provide the links.
- 2.64 The overall aim of the TGB scheme is to improve accessibility to, and within, the Thames Gateway area and support the regeneration of east London, particularly in the immediately adjacent boroughs. Journey times will be significantly

reduced and access to employment opportunities will be increased.

- 2.65 A public inquiry was held between June 2005 and May 2006 into the planning applications and orders (toll order and highway orders). Assuming favourable decisions from the relevant Secretaries of State following the public inquiry, construction of the bridge is expected to commence in 2009 with its opening anticipated in 2013.

Managing the road network

- 2.66 TfL, like all traffic authorities, must meet the requirements of the Traffic Management Act 2004 (TMA). The TMA imposes a duty on TfL to 'secure the expeditious movement of traffic on TfL's road network and on other road networks within the Greater London area'. 'LondonWorks' is an information system designed to meet this objective by providing the following four main deliverables:
- A map-based central register logging all details associated with supporting, monitoring and coordinating all highway schemes (from the boroughs, the Corporation of London, TfL, utility companies and the Highways Agency), thereby providing a pan-London overview
 - A TfL local register, which, subject to the completion by the DfT of the necessary secondary legislation, will support the introduction of a London-wide scheme for permitting road and street works

- An enhanced database and notifications management system allowing management of the TMA notifications process
- Support an advance planning regime that will seek to share future plans with a view to eliminating, or at least managing, any conflicts and making the best of opportunities that may arise for simultaneous or consecutive working

TfL is responsible for all of London's traffic signals and real-time management of the road network. A long-term vision for traffic control and system development, called the London Traffic Systems Vision, has been produced with the aim of increasing traffic operations capability to improve traffic management. A modern system for traffic signal control – backed by new telecommunications technology that will replace systems now more than 30-years-old – is planned to start in 2010.

Bus priority

2.67 Since the start of the Investment Programme, 101 bus lanes delivering 2,383 kilometre hours per week 'protection' to the bus service have been installed, many in partnership with the boroughs. The current programme will continue throughout the Plan period. Following the development of Route 149 and Route 38 pilot projects, the programme is being adapted to reflect a network corridor management approach (the 3G route programme) focused on high density routes.

2.68 There are about 3,200 signal-controlled junctions on London's bus routes and, to date, the signal vehicle detection (SVD) programme has given priority to buses at almost 50 per cent of these junctions through the installation of loops and beacons. An accelerated programme will continue, with new GPS-based iBus technology to be installed on buses and at traffic signals between 2007/08 and 2010/11.

River and coach services

2.69 More than 2.3 million river journeys are made each year. London River Services will continue to manage nine passenger piers, including those at central London locations such as Westminster and Bankside. It will also continue to provide financial support to the river bus route from the Savoy to Masthouse Terrace and Greenwich.

2.70 Refurbishment at Victoria Coach Station, including ticket hall improvements, will be completed in 2007. The coach station will continue to provide interchange facilities for an estimated 10 million passengers and 400,000 coaches per year serving both the UK and mainland Europe.

Taxi and private hire

2.71 The Public Carriage Office licenses London's 25,000 taxi drivers and 21,000 taxis. It has completed the introduction of private hire operator and vehicle licensing and is continuing the implementation of private hire driver licensing. There are 2,300 licensed private hire operators,

more than 42,000 licensed private hire vehicles and more than 35,000 licensed private hire drivers. No private hire driver applicants will be issued with temporary permits after 31 December 2006, when the transitional arrangements for driver licensing end permanently. All new applicants will then have to be licensed to work as private hire drivers.

- 2.72 The Public Carriage Office has a number of initiatives under consideration, including the following: permitting private hire vehicles to display external signage; introducing a mid-year inspection for taxis; and extending private hire vehicle licensing to incorporate a mechanical inspection in place of the present reliance on MoT test certificates for licensing purposes.

London's Transport Museum

- 2.73 The Museum will re-open in summer 2007 following an extensive refurbishment funded by TfL, the Lottery and commercial sources. There will be more exhibition space and several new themes. Galleries will showcase London Transport's famous design heritage, the poster collection, public transport during both world wars and plans for

the Capital's development in the 21st Century. TfL will continue to support the Museum and its educational programme, which promotes 'safety and citizenship' on London's transport system.

Maximising income and operating efficiently

Fares and ticketing

- 2.74 Launched in summer 2003, the Oyster card is now acknowledged as Europe's most advanced and widely used travel smartcard, with automatic top-up and pay as you go options. The card has helped to cut queues, journey times and travel costs, and has simplified fare options. It is now proposed to extend the system to cover National Rail journeys in London progressively from 2008.⁸ Policies for fares and ticketing are outlined in sections 5.2–5.4.

Support functions and secondary income

- 2.75 TfL has a variety of sources of secondary income, principally property and revenue from advertising sites. These are expected

Launched in summer 2003, the Oyster card is now acknowledged as Europe's most advanced and widely used travel smartcard.

⁸ See press release at www.tfl.gov.uk/tfl/press-centre/press-releases/press-releases-content.asp

to yield more than £190m in 2006/07 and this is expected to rise over the Plan period, particularly from new contracts for advertising on the Underground and on bus shelters. Other income comes from LU's 'free newspaper' concessions, including the new afternoon paper, and a merchandising/ licensing agreement from the television series 'Underground Ernie'.

- 2.76 TfL employs more than 20,000 staff in a variety of operational and back-up roles, and continues to provide for their existing and future development through training and other HR support. Priority continues to be given to creating a workforce that reflects the diversity of London, and section 3.25 outlines specific ongoing and future actions. Members of staff have access to a range of support and occupational health services. In the case of the latter, TfL recognises its responsibility to minimise any health impacts its operations may have on staff (see section 3.31).

Efficiencies

- 2.77 TfL directs the expenditure of more than £6bn of public funds each year. A significant proportion of this expenditure is already committed in long-term contracts, the most significant being the PPP and PFI contracts, amounting to more than 25 per cent of TfL's annual expenditure.
- 2.78 The focus of TfL's efficiencies programme is on the delivery of cash savings that can be recycled to increase service delivery. 'Non-cashable' efficiencies are those such as increased

quality or quantity in service for the same cost, and customer benefits such as improved journey time.

TfL's efficiency achievements to date

- 2.79 TfL's efficiency programme was originally established in 2002/03 to deliver more than £1bn (cumulative) over the period 2003/04 to 2009/10. The initial focus of TfL's efficiency programme was on achieving efficiencies in 'back-office' functions, but was subsequently extended into operational activities.
- 2.80 During 2005/06, TfL delivered £222m of efficiencies against a target of £148m. Including those recurring efficiencies from previous years, cumulative efficiencies delivered to the end of March 2006 were £383m.

TfL's future efficiency plans

- 2.81 TfL's efficiency programme is subject to continual review and, as a result, targets have been increased still further, to deliver over £1.2bn of savings, as shown in table 8.
- 2.82 In addition to the continuing operational and back office efficiencies, the future additional efficiency initiatives include:
- Additional procurement stretch targets due to continued focus on controllable spend across TfL
 - Continued focus on delivering efficiencies through the contracting arrangements relating to the bus

Table 8: TfL efficiencies targets

Efficiencies targets (£m out-turn)	2005/06 actual	2006/07 target	Q2 forecast	2007/08 target	2008/09 target	2009/10 target
Procurement	73	59	72	73	73	74
Business Improvement Programme/staff	27	25	26	33	35	38
Marketing and other	43	27	20	20	20	21
Total back office	143	111	118	125	128	133
Bus contract savings	31	34	44	59	69	60
Tube Lines refinancing	2	2	2	2	2	2
Road maintenance contracts	0	0	0	3	4	5
LU operating efficiencies	2	16	15	17	23	25
LU contractual efficiencies	44	6	7	5	3	0
Rail operations	0	1	1	2	4	3
Total operational efficiencies	79	59	69	87	105	95
Total annual efficiencies	222	170	187	212	233	229
Additional allocated efficiencies				5	6	7
Grand total (cumulative)	383	553	570	787	1,026	1,262

(Cumulative efficiencies of £383m in 2005/06 include £161m savings delivered in 2003/04 and 2004/05)

network, and additional operational efficiencies as a result of reducing cash on buses

- Those arising from London Rail operational activities, including savings on the DLR franchise

2.83 In addition to the claimable cashable efficiencies, TfL, through better

procurement, has also delivered £2m of benefits in 2005/06 through increased secondary income, which will increase to almost £9m a year by 2009/10. Although not historically counted against the efficiency target, this represents an additional £27m over the Plan period, which is available for TfL to spend on improving service delivery.

2.84 TfL is keen to respond to the Mayor's request for the GLA Group to develop a framework for working together more closely. The aim is to ensure that everyone

shares and understands the Mayor's vision for London and turns it into a reality as effectively as possible, making the best use of group skills and resources.

Overall Business Plan expenditure by mode

Table 9: Total expenditure by mode

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10	Total
Operating expenditure						
London Underground	2,403	2,596	2,694	2,790	3,014	13,497
London Rail	140	134	183	273	315	1,045
Surface Transport	2,224	2,346	2,538	2,662	2,729	12,499
Major Projects	28	43	36	37	39	183
Support services and other	211	325	351	377	400	1,664
Total operating expenditure	5,006	5,444	5,802	6,139	6,497	28,888
Capital expenditure						
London Underground	339	316	521	687	947	2,810
London Rail	83	171	512	681	298	1,745
Surface Transport	280	270	337	378	213	1,478
Support services and other	11	42	35	6	3	97
Over-programming	0	(63)	(165)	(173)	(204)	(605)
Capital expenditure (net of over-programming)	713	736	1,240	1,579	1,257	5,525
Total expenditure	5,719	6,180	7,042	7,718	7,754	34,413

Olympics expenditure

2.85 Since London was awarded the 2012 Olympic and Paralympic Games, TfL and the Olympic Delivery Authority (ODA) have been facilitating the delivery of transport schemes to enhance London's transport system and meet the Olympics requirements. As part of London's Olympic bid, a Memorandum of Understanding consisting of transport schemes was presented to the International Olympic Committee.

2.86 The schemes were split into two parts:

1. Existing TfL funded schemes

Approximately £1.6bn is being spent on schemes that are already a part of TfL's Investment Programme and would be delivered in time for the Games. The schemes include:

- The East London Line extension project

- Extensions and improvements in capacity on the DLR
- Infrastructure improvements on the LU network
- Improved services on the North London Line
- Enhancements to bus services, walking and cycling access to Olympic venues by Surface Transport

Table 10A details the list of schemes and costs involved up to and including 2009/10.

2. Additional Olympic specific schemes

TfL committed to delivering these schemes in the event of a successful bid, with funding of approximately £296m from ODA. See table 10B for the list of schemes and costs involved up to, and including, 2009/10.

Detailed descriptions of all of these Olympics schemes are in TfL's Investment Programme document.

Since London was awarded the 2012 Olympics, TfL and the Olympic Delivery Authority have been facilitating the delivery of transport schemes to enhance London's transport system and meet the Olympics requirements.

Table 10A: Pre-existing TfL schemes providing transport improvements for the 2012 Olympics

£m	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 2005/06– 2009/10
Description						
DLR London City Airport extension in service	22.2	0.4	0.0	0.0	0.0	22.6
Second DLR platform at Stratford Regional station	3.6	11.5	3.7	0.0	0.0	18.8
DLR Woolwich Arsenal extension	73.9	58.4	55.7	17.3	(6.7)	198.6
18 additional DLR rail cars (6 for 2-car train service to Woolwich Arsenal, 12 for 3-car train service on Bank-Lewisham section)	7.2	5.8	32.4	5.6	0.0	51.0
15tph 3-car DLR train service on Bank-Lewisham section. Total of 15 additional rail cars	4.6	13.4	66.6	62.9	16.2	163.5
Central line upgrade. Journey time improvement (from 9% increase in train km)	N/A	N/A	N/A	N/A	N/A	N/A
Piccadilly line extension to Heathrow Terminal 5	0.0	0.5	3.0	8.2	7.7	19.4
Jubilee line upgrade. Journey time improvement of 22% (from increase in service frequency from 24tph to 33tph and a 48% increase in train km)	N/A	N/A	N/A	N/A	N/A	N/A
Northern line upgrade. Journey time improvement of 18% (from increase in service frequency from 30tph to 33tph and an 18% increase in train km)	N/A	N/A	N/A	N/A	N/A	N/A
Refurbishment/modernisation programme for 246 stations	N/A	N/A	N/A	N/A	N/A	N/A
Improvements to the A13	14.2	19.0	11.4	29.4	28.8	102.8
East London Transit – phase 1	0.9	6.2	9.4	0.0	0.0	16.6
**East London Transit – phase 1B, 2 and 3	0.6	0.7	1.9	3.1	5.3	11.6
Greenwich Waterfront Transit – phase 1	0.0	0.4	3.9	12.0	12.0	28.4
**Greenwich Waterfront Transit – phase 2A and 3	0.8	0.6	0.8	1.9	6.3	10.3
East London Line extension	44.6	96.6	282.1	392.7	137.0	953.0
*Olympic route instrumentation	0.1	0.0	1.9	5.0	3.1	10.1
*North London Line: stations upgrade	0.0	1.8	8.9	9.3	7.0	26.9
Pre-existing TfL funded schemes	172.7	215.3	481.6	547.4	216.7	1,633.6

*Subsequently added post-MoU

**Delivered post 2010 tph = trains per hour

Table 10B: Additional ODA funded schemes

£m Description	ODA funded? (P = partial)	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 2005/06– 2009/10
Conversion of North London Line to DLR operation, with 3 new stations, extension to Stratford International, platform for revised National Rail North London Line service at Stratford (£29.1m total ODA funding)	P	3.5	10.1	57.1	67.3	61.5	199.5
22 additional rail cars to provide 24tph 2-car train service for Olympics on converted North London Line, and 3-car train service for Olympics to Woolwich Arsenal (50% ODA funded)	P	0.0	6.4	3.1	14.7	17.8	42.0
*North London Line: Enhancement of track and signalling infrastructure	P	0.0	3.0	16.1	74.5	100.6	194.2
Infrastructure upgrade at Blackwall and East India stations and signalling, communications and power modifications between Poplar and Woolwich to allow 3-car train operation to/from Woolwich Arsenal during Olympics	Y	0.0	0.0	1.9	3.2	3.9	9.0
Increase to station capacity at Prince Regent (second exit to serve ExCel) and other network stations	Y	0.0	0.0	0.5	2.1	3.7	6.3
Provision of new signal loop between Westferry and Royal Mint Street to improve perturbation recovery time	Y	0.0	0.0	0.0	0.4	0.0	0.4
Provision of new siding at Royal Mint Street to improve system recovery time	Y	0.0	0.0	0.0	3.7	6.3	9.9
Enhancement of LCN+ to provide cycling opportunity for spectators and workforce	Y	0.0	0.0	0.0	1.1	5.3	6.4
Enhancement of walking routes in vicinity of Olympic Park	Y	0.0	0.0	0.2	0.4	1.8	2.5
Transport Control Centre	Y	0.0	0.0	0.0	4.7	4.7	9.4
**Olympic route network carriageways	Y	0.0	0.0	0.0	0.0	0.0	0.0
**Olympic route junction improvements	Y	0.0	0.0	0.0	0.0	0.0	0.0
LU stations: Upgrade of West Ham station to increase capacity and upgrade of station operations rooms at key interchanges	Y	0.0	0.2	0.8	5.5	4.3	10.7
LU resilience: Improved resilience on the Central line is now being delivered by an operational solution	Y	0.0	0.5	0.0	0.0	0.0	0.5
Total ODA funded schemes		3.5	20.2	79.5	177.6	209.6	490.4

*Subsequently added post-MoU

**Delivered post 2010 tph = trains per hour





Focusing on sustainability

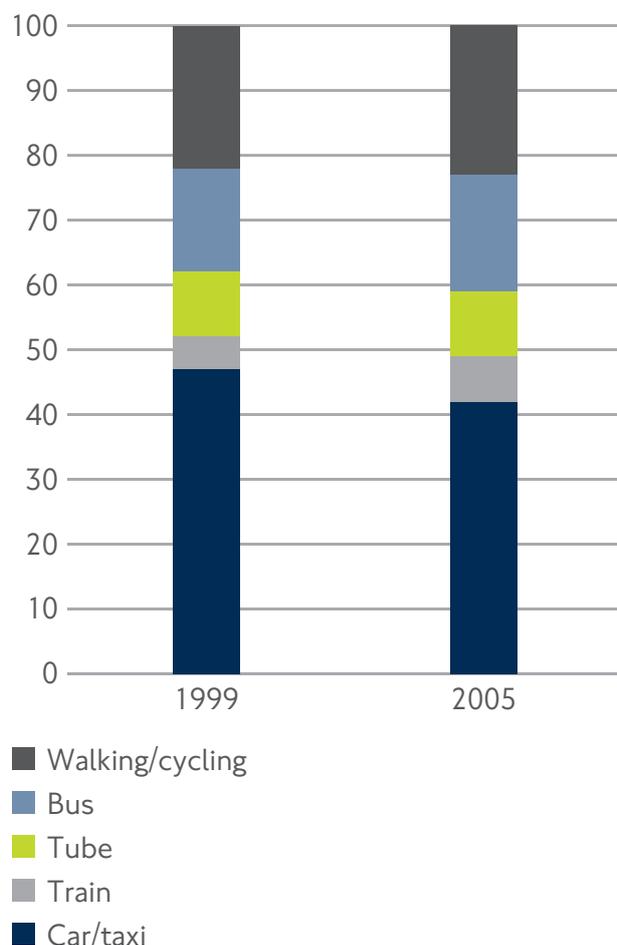
TfL makes a major contribution to the economic development of London, and has the power to improve the environment, health, safety and E&I for its staff and Londoners through its policies and investment programmes.

3.1 Sustainable development, or sustainability, is defined by the GLA as creating a better quality of life for people, both now and in the future. This definition, which is in line with the UK Strategy for Sustainable Development, sets a context within which the Mayor's objectives of economic development, social inclusion and environmental improvement need to be achieved in

a balanced manner over the long-term. TfL makes a major contribution to the economic development of London, and has the power to improve the environment, health, safety and E&I for its staff and Londoners through its policies and investment programmes.

3.2 This section highlights some of the programmes and projects that TfL undertakes to contribute to specific Mayoral strategies, and to address economic, social and environmental challenges to deliver key improvements or benefits. In addition, the section discusses TfL's commitment to putting in place comprehensive mechanisms for mainstreaming sustainability into its planning, projects and operations.

Figure 5: Mode shares (main modes) – London 1999–2005⁹



Sustainable transport

3.3 One of the main aims of TfL is to increase usage of public transport and other more sustainable modes. So far, TfL's activity to encourage more people to use public transport has seen year-on-year improvements. Since TfL was formed in 2000, there has been a modal shift of five per cent from car usage to public transport and walking and cycling, saving 500,000 car journeys per day and an estimated 210,000 tonnes of CO₂ per year.

TfL recognises that achieving a further modal shift will require a combination of supply and demand orientated policies and measures that are highly interdependent.

3.4 TDM involves measures to change travel behaviour to get better use and higher value for users from the existing transport system and, in doing so, encourage more sustainable travel. Fiscal and physical measures, known as ‘hard’ TDM, can be used to dissuade people, through price or physical intervention, from using the car in periods or areas of crowding or congestion. Congestion Charging is an important element of ‘hard’ TDM in London that has achieved not only less congestion, but also significant environmental benefits. The changes in traffic flow and speeds that have resulted from the central London Congestion Charging scheme have led to a reduction in harmful emissions, and the proposed western extension to the Congestion Charge scheme is expected to deliver similar benefits.¹⁰

3.5 ‘Hard’ TDM measures are generally most effective – and most likely to have public support – when accompanied by ‘soft’ TDM measures and public information campaigns. TfL has a dedicated team focused on delivering a ‘soft’ TDM programme that uses information, marketing and incentives to enable and support people to make more sustainable travel choices. It is focused on implementing school, personal and work travel plans across London, including travel plans for its staff. More detail on TfL’s TDM programme can be found in sections 2.43–2.44.

3.6 TDM policies themselves need to be complemented by increases and improvements in public transport

capacity, and by improvements for walkers and cyclists. Section 2 provides a detailed outline of TfL’s work in these areas. Significant proposed transport schemes include the Thames Gateway Bridge, West London Tram, and the Interchange Programme. Increasingly, TfL seeks to incorporate sustainability concepts in project design to ensure that potential benefits are maximised.

3.7 Cycling in London is growing fast (up 72 per cent on the TLRN in 2005/06 compared with 2000 levels). Improving London’s infrastructure for cyclists will help even more. Much work will be carried out as part of the LCN+ programme. Also, further continued implementation of walking schemes is aimed at making London one of the most walking-friendly cities in the world by 2015.

3.8 In addition to promoting travel-related modal shift, TfL’s Freight Unit has worked closely with a large range of stakeholders to develop a London Freight Plan. This will promote a progressive shift of freight, including transport of waste, from road to more sustainable modes such as rail and water (see section 2.45).

Climate change

3.9 Climate change is the single biggest problem facing humanity. With that in mind, the Mayor has announced a series of five-yearly CO₂ reduction targets for London in the lead up to 2025. These

¹⁰ See the Congestion Charging 4th Annual Monitoring Report that is available at: tfl.gov.uk/tfl/cclondon/pdfs/FourthAnnualReportFinal.pdf

aim to put London on a trajectory to meet the UK's longer-term aspiration of a 60 per cent reduction in CO₂ by 2050. The 2010 target is a 15 per cent reduction in CO₂ compared to 1990 levels. This first interim target will be especially challenging to achieve as current CO₂ emission levels from transport are estimated to be approximately equivalent to those of 1990.

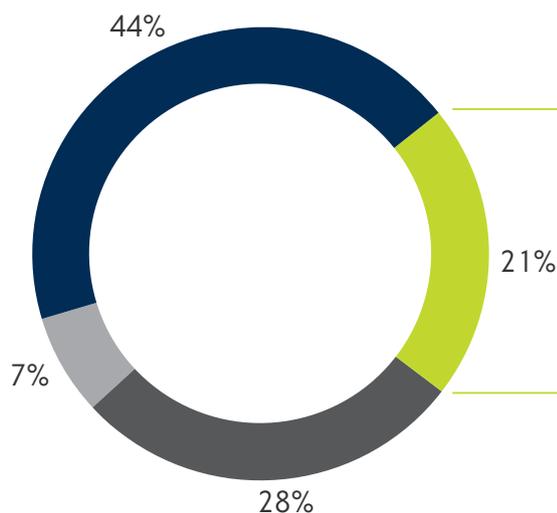
3.10 CO₂ is primarily generated through the burning of fossil fuels. Transport is,

therefore, a significant contributor to these emissions, responsible for about nine million tonnes (21 per cent) of London's CO₂ emissions. Road transport accounts for most of this, generating about 80 per cent of the total, of which private vehicles and road freight account for around 50 per cent and 25 per cent respectively.

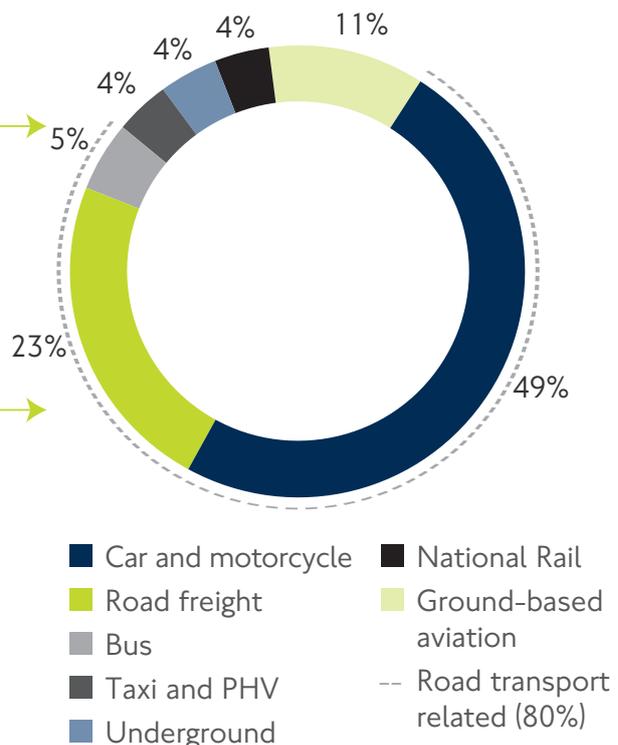
3.11 TfL is preparing a Climate Change Action Plan for the GLA, which will cover transport in London more broadly. The London Freight Plan will aim to reduce

Figure 6: London CO₂ emissions – all sectors and transport

CO₂ emissions from London
100% = 42 million tonnes p.a.
(7% of UK emissions)



London transport emissions
100% = 9 million tonnes p.a.



■ Domestic
■ Transport
■ Commercial
■ Industrial

11 Emissions quoted exclude air travel. For the need to tackle air travel emissions, see 'No chance for the climate without tackling aviation', Tyndall Centre for Climate Change, 2005

CO₂ emissions from road freight, which currently accounts for 2.3 million tonnes (5.5 per cent) of London's CO₂ emissions.¹¹ Adapting to the expected results of climate change will also be a key challenge. Two tasks will be to plan to cope with potential increases in water levels and flooding, and to manage higher temperatures on the Underground.

Mitigation

3.12 As figure 6 demonstrates, most carbon emissions in the transport sector come from modes outside TfL's direct control – cars and motorcycles (which account for 49 per cent) and road freight (23 per cent). Although TfL cannot influence these emissions directly, its analysis suggests that a combination of behavioural change, energy efficiency and accelerated investment in new technology has the potential virtually to halve total transport-related CO₂ emissions – except those that result from aviation – by 2050. Regarding behavioural change, TfL's 'soft' TDM programme is now the largest in the UK, investing £13.9m in 2005/06, £24m in 2006/07 and £30m in 2007/08 in workplace, school and personalised travel planning (see sections 2.43–2.44). Coupled with 'hard' TDM through Congestion Charging, and improvements in alternatives to motoring, this has the potential to deliver significant changes. In the fields of energy efficiency and new technologies, TfL's planned LEZ and the Congestion Charging scheme could incentivise use of the most energy-efficient vehicles and low-carbon fuels. However, TfL acknowledges that further

steps will be necessary in order to achieve the substantial reductions in transport-related CO₂ required by the Mayoral targets. It is committed to continuing to invest and innovate in this fast-moving sphere, and anticipates that travel patterns and the transport system in London in 2050 will look very different from those today.

- 3.13 Buses and the Underground account for about 80 per cent of the CO₂ TfL can influence directly. CO₂ emissions from buses will begin to stabilise around 2008/09, when there will be a greater number of Euro IV buses in the fleet. These are estimated to have five per cent lower fuel consumption. Moreover, in March 2006, London Buses took delivery of six hybrid diesel/electric, single-deck buses for trial purposes. These are cleaner and quieter than conventional diesel buses. London Buses has developed a plan to accelerate the introduction of hybrid vehicle technology during the Business Plan period, as manufacturers respond to the Mayoral imperative to produce hybrid vehicles in quantity.
- 3.14 TfL will seek to further reduce emissions from its bus fleet by accelerating the mainstreaming of the diesel-electric hybrid buses mentioned earlier. In parallel, it will ensure that all existing diesel buses use a low-blend biofuel mix as soon as possible. This requires no engine changes. It has also begun the procurement process for 10 hydrogen internal combustion engine, or fuel cell buses, to be delivered in 2008/09. Also, bus

drivers will continue to be trained in how to operate all buses as fuel efficiently as possible.

3.15 LU currently buys about 16.8 per cent of its electricity requirements as 'green tariff' electricity. It will increase this, and will work in partnership with groups promoting London-based renewable and good quality combined heat and power projects (eg the London Climate Change Agency), as well as energy suppliers, to support new renewable projects that might otherwise struggle to find backing.

3.16 TfL will continue to implement initiatives to improve the energy efficiency of its operations:

- On LU, opportunities for improving energy usage and reducing wastage will be considered carefully during ongoing line upgrade work
- In 2005/06, LU cut energy consumption at its stations by 25.5 per cent over 2000/01 levels. LU will continue these energy saving initiatives, and will work with its PPP suppliers, Metronet and Tube Lines, to achieve further energy efficiency improvements
- TfL will continue to trial LED technology for various applications, including bus shelter lights, LU station lighting and traffic lights

Road freight accounts for 2.3m tonnes (5.5 per cent) of London's CO₂ emissions. The London Freight Plan will aim to reduce this.

Adaptation

3.17 Current weather already presents challenges to maintaining an efficient transport network, and it is acknowledged that future climate change could have further adverse effects on the system. Adaptation measures are an integral part of TfL's Business Plan. LU is currently developing predictive models to assess the impact of changing climatic conditions on LU assets and structures. Further development work will look at potential tunnel cooling options. In addition, LU is installing cooling on its new sub-surface stock.

3.18 London Buses is working to reduce internal temperatures by means of tinted windows, roofs painted white, full roof and body insulation, and opening windows. A number of buses have been retrofitted with cooling systems, and the feasibility of fitting air-cooling systems to all new buses is being evaluated during 2006/07.

Sustainable procurement

3.19 TfL has adopted the GLA Sustainable Procurement Policy and signed up to the highest level, B2, of the Mayor's Green Procurement Code. This commits it to ensuring that it promotes environmental, E&I and other social objectives through procurement. The Green Procurement Code commits TfL to setting measurable targets for specifying and buying recycled products.

3.20 Already businesses have started to incorporate sustainable procurement practices. The East London Line will require its main works contractor to adhere to the principles of the code. Streets new term maintenance contracts, starting in April 2007, include improved specifications for landscape, biodiversity and arboricultural management. TfL will continue to help agents identify and incorporate sustainability requirements in future contracts.

Equality and inclusion

3.21 TfL's E&I key objectives are to mainstream E&I in all business processes, making equality impact assessment a key part of all decision making, and to continue promoting the overall progress TfL has made in delivering its Business Plan objectives.

3.22 **Service delivery and customers** – an accessible and safe transport system is essential in tackling social exclusion and inequality. The availability and affordability of transport can influence job opportunities, allow people to live independently and support them in enjoying their leisure. TfL will continue to consult with representatives from the designated target groups – eg women, black, Asian and minority ethnic (BAME), and disabled people – to ascertain what more needs to be done. As a result of a recent initiative launched by LU, the Royal National Institute for the Blind and Describe Online, blind passengers will be able to receive free books of

tactile maps, made up of raised lines which can be read by touch, to help them find their way around Old Street, Westminster and Earl's Court Underground stations.

3.23 **Community engagement and leadership** – TfL aims to encourage joint-working with organisations and businesses to promote corporate social responsibility, such as putting people first by creating sustainable developments, combating inequality and social exclusion, and improving employment practices. Market research and consultation continue to be carried out to develop a clearer understanding of how the differing lifestyles of London's population shape travel needs.

3.24 **Wealth creation and sustainable communities** – TfL believes in strengthening minority business communities. Group E&I will continue using the list of procurement opportunities during 2007/08, identifying test contracts to further embed equity measures within procurement and ensuring key information reaches equality target groups.

3.25 **Workforce** – TfL continues to give priority to creating a workforce that represents the diversity of London. Group E&I will continue to support the following activities led by Group HR:

- Improvements to workplace facilities and practices to ensure organisational culture is not a barrier to recruitment and retention
- Employee exit interviews to ascertain information that may assist with

attraction and retention of female, disabled and BAME employees

- Using existing relationships with organisations such as Action for Blind People, Greater London Action on Disability and schools, colleges and universities, to raise awareness of careers in transport and to provide placement and work experience opportunities

Health

3.26 Recognising that it can make a positive contribution to the health of Londoners in terms of air quality, TfL has set out to minimise emissions of those pollutants that are of most concern. Improvements to walking and cycling (see sections 2.35–2.38) and road safety (see sections 3.46–3.47) also benefit the health of Londoners and the former two help combat obesity. TfL also has a responsibility to minimise the health impacts of its operations on its staff.

Air quality

3.27 London's air quality is the worst of any city in the UK and among the worst in Europe. Air pollution is estimated to cause 1,600 premature deaths every year.

3.28 TfL's TDM programme and Congestion Charging support the reduction of traffic in central London (see sections 2.53–2.54) but there is a limit to how much can be achieved through these measures alone. TfL is striving to reduce

particulate matter (PM₁₀) and nitrogen oxide (NOx) from the vehicles it controls, as well as encouraging environmentally friendly modes of transport, including walking and cycling.

3.29 TfL has been at the forefront of piloting new technology for buses. NOx emissions will begin to fall from 2007/08, when greater numbers of Euro IV vehicles will enter the fleet with NOx abatement technology fitted as standard. Moreover, trials of retrofit NOx abatement technology are ongoing and the new hybrid buses have higher fuel efficiency, while the new hydrogen buses emit only water vapour (see section 3.14).

3.30 TfL has been developing proposals, subject to a Mayoral decision, for a London-wide LEZ to reduce emissions from the most polluting diesel lorries, coaches and buses (see section 2.52). The earliest date that this could be implemented is 2008. The introduction of more environmentally friendly vehicles and ensuring that taxis, Dial-a-Ride and TfL's support fleet meet the requirements of the LEZ has been, and will continue to be, high on TfL's agenda. Funding of borough air quality improvements, such as electric vehicle recharging points and vehicle emissions testing, continue to be taken forward through the Borough Spending Plans (BSPs).

Occupational health in TfL

3.31 Improved sickness absence data across TfL indicates that there are significant opportunities to improve the situation.

Occupational Health introduced a five-year Health Improvement Plan in 2004/05, initially in LU. However, over time, it will be extended to the remainder of TfL. Among the key objectives are:

- Reducing mental ill health and musculoskeletal related absences
- Early intervention to encourage a prompt return to work following sickness
- More flexibility in accommodating people with health needs at work
- Empowering employees to understand and address their own health
- Actively communicating health information, activities and services
- Measuring progress of the health plan against business related targets to ensure a positive impact on customer service

Environment

3.32 The Mayor has produced a total of five environmental strategies that set out his priorities and proposals for making London a cleaner, greener, more sustainable city. In addition to air quality and energy, they cover ambient noise, biodiversity and waste.

3.33 **Noise** – noise is increasingly seen as a key issue. There is expected to be a growth in the number of LU noise complaints because of the work to modernise the system being undertaken

over the next three to four years. PPP suppliers will seek to manage both noise and vibration and will also continue to provide advanced warning of planned works to residents and undertake community visits as appropriate.

3.34 More of the TLRN is to be surfaced with lower-noise material. An increasing number of buses will be quieter than the legal limit (two dBA below). The first vehicles to achieve this new noise standard will start entering the fleet in 2006/07. Streets is developing a Traffic Noise Action Programme for the TLRN.

3.35 **Waste** – TfL seeks to support the Mayor's Municipal Waste Strategy by reducing its waste and promoting reuse and recycling. Across TfL, key actions to promote reduction, reuse and recycling of its waste include the following:

- Streets commitment to using recycled and secondary aggregates for future major construction projects
- In 2005/06, LU exceeded its 25 per cent target for commercial and industrial waste recycling by nearly two per cent. It now seeks to increase its recycling rate by five per cent per annum to 45 per cent by 2009/10
- TfL is working towards a progressive shift of waste freight from road to more sustainable modes such as rail and water
- The paper and newspaper recycling scheme will become network-wide in the near future

3.36 **Natural environment** – TfL owns many assets of ecological importance to

London, including about 220km of trackside that is a potential wildlife corridor or refuge. These assets will be protected and enhanced.

3.37 LU will continue to support the London Biodiversity Partnership and to develop and implement the London Underground Biodiversity Plan. Replacement and additional tree planting across parts of the TLRN has been completed and TfL will ensure that stocks are maintained. Streets' new-term maintenance contracts (starting in April 2007) will include improved biodiversity specifications.

3.38 **Built environment** – as one of the largest landowners in the Capital, TfL has the potential to influence the built environment. In 1999, English Heritage listed 45 Underground stations as Grade II because of their 'particular importance, outstanding features and special interest value'.

3.39 Specific actions TfL is undertaking, or planning to undertake, to enhance the built environment include:

- The tackling of envirocrime (littering and graffiti) on rolling stock and at stations
- Working with boroughs and stakeholders to embed environmental guidance in the design of relevant TfL projects (see also section 2.49)
- Developing technical guidance on the decorative and architectural repair of features such as brickwork and paint,

and providing information to contractors about heritage features

- Continuing to reduce the impact of TfL infrastructure on the streetscape. For example, underground traffic signal cabinets are being trialled

3.40 **Water** – TfL uses significant quantities of water in its offices, stations, workshops, bus cleaning and train washing depots. It aims to reduce this by turning to low-water-usage systems and grey/recycled water for train washing. For example, LU, which currently uses recycled water for train washes in some cases, will install a hi-tech train wash for the Waterloo & City line.

Safety

Strategic safety plans

3.41 TfL achieves improvements in health and safety performance by systematic improvements in health, safety and environment (HSE) management systems and their implementation, leading to an enhanced HSE culture throughout the organisation, and through specific work streams/projects that bring about HSE improvements (directly or indirectly).

3.42 LU is committed to continuous improvement in safety performance. Its safety plan summarises the work to improve safety on the LU network for customers and employees, and to simplify LU's standards and related assurance regime. The plan has been

drawn up after joint consultation with the PPP partners, Metronet and Tube Lines, to ensure coherent improvement programmes across all companies.

3.43 Surface Transport plans, coordinates and manages safety throughout all of its activities as highway and traffic authority for the TLRN, public transport provider, lead agency for implementing the Mayor's London Road Safety Plan, and as an employer. The Surface Transport safety plan marks the commitment of Surface Transport to continue, and further improve, its efforts for safer travel in all forms within and around London. Because of its importance, road safety is addressed in more detail.

3.44 In line with the TfL Group HSE philosophy of aligned HSE management systems, a London Rail HSE management system has been developed and partially rolled out and a similar system is presently being developed for DLR. The safety-related risks of the changes introduced by the East London Line project have been identified and the processes and strategies to address them are presented in the Safety and Strategy Plan and will be actioned as the plan is implemented.

3.45 LU, Surface Transport and London Rail have each developed safety plans that outline TfL's strategic health and safety objectives and planned activities reflecting key areas where efforts should be focused to further improve health and safety performance.

London Road Safety Plan 2006

3.46 This plan, first published in November 2001, set a framework for action up to 2010. A recent review has confirmed that past activity has been successful and recommends 'more of the same'. So now the Mayor has announced the following new lower casualty targets to be achieved by 2010 (against 1994–1998 levels):

- A 50 per cent reduction in all killed and seriously injured (KSI) casualties
- A 50 per cent reduction in pedestrian KSI
- A 50 per cent reduction in cyclist KSI
- A 40 per cent reduction in powered two-wheeler KSI
- A 60 per cent reduction in children (under 16-years-old) KSI
- A 25 per cent reduction in slight casualties

The reviewed plan sets out proposals for joint working by TfL and the many agencies that have either an interest in, or a responsibility for, road safety.

3.47 Among actions required are the following:

- A commitment regarding additional police resources to enforce speed limits, vehicle defects etc. and for traffic work through the Traffic Operational Command Unit
- Work to further reduce speed-related accidents
- The continued identification of sites with high casualties and the

installation of cameras at the most dangerous sites

- Reviews of TLRN junctions to identify shortcomings for pedestrians
- The reduction of powered two-wheeler incidents on the TLRN and the BPRN
- Encouraging health authorities to provide safety information to parents of pre-school age children
- Distribution of Children's Traffic Club material to the parents of pre-school children
- Reviewing the design of TLRN junctions, and links, to ensure they provide maximum protection for cyclists
- The identification of high-risk sites for cyclists and proposals for remedial measures
- The implementation of local safety schemes for the TLRN

Detail of proposed expenditure is shown in section 2, table 7.

Resilience

3.48 Since the terrorist attacks of July 2005, TfL has continued to review its resilience arrangements. Its initial focus was on ensuring that response and emergency management arrangements were effective. Now, the longer-term implications of operating under heightened levels of terrorist threat are being worked through. A programme is already in place to give greater

protection to LU customers, staff and assets from terrorist threats, details of which must naturally remain confidential.

3.49 Safety and security improvements are considered as part of all asset projects. In addition, the Investment Programme contains a number of specific projects, including depot safety improvements; upgrades to fire protection systems; measures to improve the visibility of certain signals; and work to coordinate and integrate CCTV cameras and upgrade them at various critical locations. A 44 per cent increase in security personnel by 2007/08, combined with policy changes such as the power to apply ASBOs, will enable TfL to combat crime and antisocial behaviour more effectively throughout the network.

3.50 For buses, CentreComm will continue to provide day-to-day 'incident and major emergency' management. It also has an 'optimum strategy' for keeping bus services running.

3.51 The central operations hub of traffic management is the London Traffic Control Centre. Its work includes helping to ensure that stakeholders are able to run events with the minimum possible congestion, collating intelligence on actual or potential congestion and, where intervention is appropriate, coordinating assistance.

Mainstreaming sustainability

3.52 Delivery of sustainable development requires that mechanisms are devised

to support the prioritising of programmes that deliver integrated economic, social and environmental benefits at the same time.

3.53 TfL has made some progress already in mainstreaming sustainability across the organisation. E&I key objectives continue to be mainstreamed in all business processes, with equality impact assessments being an increasingly integral part of decision making. Environmental management systems are being implemented across the board, aligned with the existing health and safety management systems. A new methodology for network planning in London is underway that will facilitate the planning and programming of works on the TLRN.

3.54 During 2006/07, a Sustainability Unit was set up in Group HSE. Its role is to

provide coordination and challenge on policy and strategy, business planning and performance reporting for sustainability and to act as a focal point for sustainability as a whole across TfL.

3.55 TfL will complete the rolling out of HSE management systems and further support the development and introduction of sustainability assessments for principal activities across the organisation, from the development of projects, through procurement, to construction and operation.

3.56 With the Mayoral emphasis on sustainability, and particularly climate change, there will be programmes to develop understanding across TfL and support the roles that various parts of the organisation have to play in delivery.

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Outcomes of the plan

The aim of this Plan is to build upon the transformation of London's transport system that has taken place since 2000 by delivering further improvements, especially in areas where TfL has new and added responsibilities.

4.1 The aim of this Plan is to build upon the transformation of London's transport system that has taken place since 2000 by delivering further improvements, especially in areas where TfL has new and added responsibilities. It is supportive of the continued population and employment growth expected in London that is within the London Plan and the Mayor's overall vision for the Capital.

4.2 Table 11 shows the improvements in outcomes planned for delivery, as well

as in the main air quality indicators. The performance delivered in the first year of the five-year funding settlement, 2005/06, is also shown.

Performance targets for London Overground will be established as part of the franchising process.

4.3 The contribution made towards improving transport services specifically for E&I target groups is shown in tables 12A and 12B.

Table 11: Business Plan performance outcomes

Theme	Projections					
	Units	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10
Journey time						
Bus excess wait time: high frequency routes	Mins	1.1	1.1	1.1	1.2	1.3
DLR: On-time performance	%	96	96	96	96	96
DLR: Percentage of scheduled service operated	%	98	98	98	98	98
LU weighted excess total journey time	Mins	7.51 ¹²	6.92	6.91	6.89	6.87
LU schedule operated	%	93.6	94.5	94.7	94.9	95.2
PPP reliability: lost customer hours	Mn hrs	15.6	15.8	15.6	15.6	15.5
Roads congestion index	Index	104	106	109	109	110
Person journey time – roads (journey time per mile per person)	Mins	3.65	3.66	3.67	3.69	3.70
Demand						
Bus passenger journeys	Million	1,816	1,859	1,897	1,908	1,915
DLR passenger journeys	Million	54	61	69	76	87
LU passenger journeys	Million	971	1,020	1,048	1,072	1,095

¹² Excess wait time for 2005/06 was seven minutes, excluding the impact of the 7 July incidents

Theme	Projections					
	Units	Actual 2005/06	Forecast 2006/07	2007/08	2008/09	2009/10
Cycling journeys – TLRN	Index	172	185	198	211	226
Service volume						
Bus kilometres	Million	454	461	467	471	472
DLR train kilometres	Million	4.3	4.5	5.0	5.1	5.5
LU train kilometres	Million	68.8	70.7	70.8	71.1	72
PPP capacity: scheduled journey time capability	Mins	19.59	19.59	19.59	19.59	19.27
Service quality						
Overall bus customer satisfaction	Score	77	78	78	77	77
Overall LU customer satisfaction	Score	78	78	78	78	79
Accessibility						
LU accessible: step-free to platforms	%	17.0	18.5	22.0	24.0	25.0
Road safety						
Total killed or seriously injured	No.	3,650	3,588	3,527	3,465	3,404
Road condition (% of network 70 or worse)						
TLRN index ¹³	%	6.7	6.4	5.3	4.3	3.3
Climate change and air quality						
CO ₂ emissions (tonnes) ¹⁴	t	1,721	1,742	1,755	1,759	1,774
NO _x emissions (tonnes) ¹⁵	t	7,828	7,546	7,328	7,200	7,012
PM ₁₀ emissions (tonnes) ¹⁶	t	169	141	133	132	131

13 This is the UK pavement management system (UKPMS) road condition index

14 In several cases, no projections data were provided for significant CO₂ contributors. To avoid misleading falls in projected figures, 2005/06 data for some of the modes were carried forwards for the future periods. This was done for: DLR and Trams (~12% of CO₂ emissions from electricity in 2005/06); private hire vehicles and buses – agreements and permits (~22% of CO₂ emissions from liquid fuel in 2005/06); and CO₂ from gas (100% of CO₂ from gas in 2005/06 was brought forward)

15 Downward trend over five-year period due mainly to predicted reductions in NO_x emissions from buses and taxis

16 Large fall in PM₁₀ between 2005/06 and 2006/07 due mainly to a predicted fall in emissions from taxis

Table 12A: Equality and inclusion service delivery performance indicators

Service delivery performance indicator	Actual	Proposed targets			
	2005/06	2006/07	2007/08	2008/09	2009/10
% of LU stations with step-free access (street to platform)	17	18.5	22	24	25
% of LU stations with step-free access (platform to train)	tba	5	5.5	5.75	6
% of lifts not in service on LU	4.5	4.9	4.6	4.3	4.0
% of LU stations enhanced (additional security, access and information provision – current PPP projection)	tba	29	47	60	72
% of accessible buses	100	100	100	100	100
% of bus stops that are accessible (London-wide)	An annual survey is to be carried out in 2007/08 to determine a programme of works to ensure all bus stops are accessible				
% of traffic signals operating effectively (London-wide)	98.6	98.6	98.7	98.7	98.7
% of registered users using Taxicard ¹⁷	30	31	32	33	34
% of traffic signals with pedestrian phase (London-wide)	97	97	97	97	97
% of pedestrian crossings with facilities for disabled people on TLRN (BV165)	62	67	74	77	80
% of pedestrian crossings with facilities for disabled people on borough roads (BV165)	tba	78	81	83	85
% of accessible bus stations with accessible footways in accordance with inclusive mobility part 6 – bus stops	87	87	87	87	91
% of registered users using Dial-a-Ride	33	50	55	60	65
No. of people contacting the travel assistance scheme (average per 4 week period)	N/A	40	Targets to be agreed following review by Group E&I		
No. of assisted journeys provided via travel assistance scheme (average per 4 week period)	N/A	35	Targets to be agreed following review by Group E&I		
Total no. of major injuries and fatalities (London-wide) (BV99)	3,650	3,588	3,527	3,465	3,404
Total no. of major injuries and fatalities (TLRN) (BV99)	1,024	996	968	939	911
No. of child major injuries and fatalities (London-wide)	355	355	355	355	355
No. of child major injuries and fatalities ¹⁸ (TLRN)	61	61	60	60	60

17 The indicator is pending the outcome of the door-to-door review to be implemented in 2008

18 Child casualties on the TLRN have had a 59% reduction between the 1994–98 average and 2005/06

	Actual	Proposed targets			
Service delivery performance indicator	2005/06	2006/07	2007/08	2008/09	2009/10
% of street lighting operational on TLRN (not collected in 2005/06 – replaced by BV2 15a)	Not collected 2005/06	98	98	98	98
Total no. of additional bus shelters with seating and lighting ¹⁹	440	230	30	30	30
No. of replacement/upgrade bus shelters	100	300	500	500	500
% of on time performance night buses	84	83	83	82	82
No. of Traffic Enforcement Command Operation CCTV for traffic enforcement	335	430	508	580	655

Table 12B: Equality and inclusion service quality performance indicators

	Proposed targets		
Service quality indicator	2007/08	2008/09	2009/10
Assisted transport services			
% satisfaction with Dial-a-Ride booking service	80	85	85
% satisfaction with travel assistance scheme	90	90	90
Buses			
% satisfaction with ease of boarding, alighting and travelling on buses	80.5	80.5	80.5
% satisfaction with driver/conductor behaviour on buses	85	85	86
London Underground			
BAME customers			
% helpfulness of staff	75	75	76
% satisfaction with personal safety/security	78	78	79
% satisfaction with accessibility of travel information	81	81	82
% women – satisfaction with personal safety/security	80	80	81

19 There will be 13,000 bus shelters in total by the end of 2006/07

The Business Plan's relationship to national and Mayoral targets

- 4.4 The Business Plan plays an important role in the delivery both of national transport and Mayoral targets. For example, London alone contributes all of the growth required to meet the national target for bus and light rail services. Road safety targets have already been achieved, leading to new higher Mayoral targets (see section 3.46).
- 4.5 The DfT's Public Service Agreements (PSAs) define the national priorities for transport. TfL has agreed to monitor and report its progress against the following PSA priority areas:
- **Air quality** – transport has an important part to play in the local environment of London through emissions from all modes of transport. This Business Plan contributes to a reduction in those emissions through the ongoing improvement in bus environmental standards, the continued impact of the expanded Congestion Charging zones in reducing traffic levels, and the introduction in 2008 of an LEZ (see section 2.53 for more details)
 - **Road safety** – TfL has already delivered the national target of a 40 per cent reduction in killed and seriously injured casualties, and is now working towards a tougher Mayoral target of a 50 per cent reduction by 2010. Road safety initiatives contained within this plan are detailed in sections 3.46–3.47
- 4.6 The Mayor has set transport strategy implementation targets, which are set out in Appendix A. Both TfL and the boroughs have an important role to play in achieving these targets, some of which are monitored at individual borough level and some scrutinised London-wide. The boroughs use their LIPs (see section 1.11) to show how they expect to achieve these targets. This Plan also plays a key part in delivering the transport improvements in support of the growth identified in the London Plan (see section 1.6).
- 4.7 Delivery of the Business Plan is monitored in a variety of ways. These
- **Capacity on public transport** – through the TfL Investment Programme, TfL is increasing capacity on LU, DLR and bus services. The increases in service volume (as measured by operated km) are shown in table 11
 - **Patronage** – through a range of measures, patronage across TfL's public transport modes is forecast to rise by 2009/10 by five per cent on buses, seven per cent on the Underground, and over 60 per cent on the DLR, compared to 2005/06 levels (see table 11 and section 4.2)
 - **Public sector efficiency** – through the TfL efficiency programme, TfL is a major contributor to the efficiency targets set for the DfT as part of the review of public sector efficiency conducted by Sir Peter Gershon in 2004

include internal procedures by the TfL Board and its committees and panels, and scrutiny and budget processes within the GLA/London Assembly. The

London boroughs annually report on progress of their LIPs and seek funding from TfL through a LIP reporting and funding submission.

The Business Plan plays an important role in the delivery both of national transport and Mayoral targets. For example, London alone contributes all of the growth required to meet the national target for bus and light rail services.





Financing TfL's plans

Business Plan programmes are financed from six main sources: fares and ticket income, secondary revenue, third-party funding, Government grant, the GLA council tax precept and prudential borrowing.

Financing TfL's plans

5.1 Business Plan programmes are financed from six main sources:

- Fares and ticket income
- Secondary revenue such as that from property management, advertising sites and LU's free newspaper contracts
- Third-party funding for specific projects such as the Piccadilly line extension to Heathrow Terminal 5
- Government grant, for which TfL has a settlement from the DfT for the period 2004/05 to 2009/10
- The GLA council tax precept
- Prudential borrowing

Fares policy

5.2 To ensure that the Investment Programme can be financed, the Plan is predicated upon above-inflation increases in fares and other transport related income. It also includes the 2006 extension of free child bus and tram fares to 16 and 17-year-olds remaining in full-time education, and the introduction in the same year of free Underground travel at off-peak times for accompanied children aged under 11.

5.3 The fare structure that the Mayor has announced for January 2007 onwards is designed to encourage the use of Oyster cards to increase the number and percentage of journeys made by bus and Underground using Oyster,

thereby speeding up journeys and improving the efficiency of the transport network. From January 2007, National Rail train operating companies have agreed to introduce zonal fares, which will be simpler for passengers and pave the way for introducing Oyster pay as you go on National Rail services from 2008.

5.4 Fares decisions are taken annually by the Mayor, and, should the increases be different from those in the Plan, the spending profile will be varied to ensure that financial balance is maintained. The Plan has taken into account the financial impact of the January 2007 fares announcement.

Borrowing

5.5 Borrowing enables TfL to implement projects within its Investment Programme that might otherwise be delayed because of immediate funding constraints. There are two key principles:

- Borrowing is for capital purposes only (ie not to fund operations)
- The level of borrowing is prudent

5.6 In 2004/05, TfL established a £3.3bn Medium Term Note programme. The first £196m of bonds were sold in December 2004 in support of the Investment Programme. This was the first time that TfL or its predecessor bodies has raised finance in the capital markets independently of central Government. TfL has ratings

of AA from Standard & Poor's and Fitch and Aa1 from Moody's, just below UK Government ratings.

- 5.7 During the last quarter of 2005/06, a further £550m of borrowing was carried out – from the European Investment Bank, a second bond issue and the Public Works Loans Board (an arm of the Debt Management Office). TfL was able to achieve lower rates of interest in this borrowing both through investors taking a positive view of TfL's credit and lower underlying interest rates.
- 5.8 The level of borrowing over the Business Plan period is shown in table 13A. The Secretary of State for Transport has confirmed that the Government supports this borrowing plan, subject to London's borrowing remaining consistent with the wider Prudent Borrowing Regime.

Funding the Thames Gateway Bridge

- 5.9 The TGB scheme will be procured as a PFI concession. A Concessionaire will be appointed for the design, construction, financing and operation of the project. It is intended that the TGB scheme will be funded through a combination of toll revenues and PFI credits. The funding requirement is £200m, which, after application of the PFI credit formula, translates into a PFI credit requirement of £350m. TfL has recently submitted the PFI credit application and provided assurances to the DfT that this will be the full and final contribution that it requires from the DfT for the TGB scheme. It is a requirement for the award of PFI credits that the project is, and remains, off balance sheet. TfL has agreed that it will manage the budget risk should the project come on balance sheet and will not leave the DfT exposed to this risk.

The fare structure that the Mayor has announced for January 2007 onwards is designed to encourage the use of Oyster cards to increase the number and percentage of journeys made by bus and Underground using Oyster.

Table 13A: Summary of TfL Business Plan

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	Plan 2008/09	2009/10	Total
Traffic revenue	2,290	2,482	2,660	2,828	2,989	13,249
Congestion Charging	254	258	341	359	348	1,560
Other income	281	297	331	370	419	1,698
Investment income	55	59	65	40	23	242
Total income	2,880	3,096	3,397	3,597	3,779	16,749
Operating costs (net of PFI/PPPs payments)	(4,297)	(4,630)	(4,946)	(5,172)	(5,458)	(24,503)
Net operating expenditure (net of PFI/PPPs payments)	(1,417)	(1,534)	(1,549)	(1,575)	(1,679)	(7,754)
Capital projects through PFI/PPP schemes	(699)	(730)	(759)	(833)	(860)	(3,881)
Capital expenditure (net of over-programming)	(713)	(736)	(1,240)	(1,579)	(1,257)	(5,525)
Capital and PFI/PPP scheme expenditure	(1,412)	(1,466)	(1,999)	(2,412)	(2,117)	(9,406)
Third-party funding	175	185	186	220	165	931
Debt service	(10)	(58)	(70)	(106)	(151)	(395)
Contingency	0	(26)	(27)	(28)	(28)	(109)
Net expenditure	(2,664)	(2,899)	(3,459)	(3,901)	(3,810)	(16,733)
Working capital	249	2	(102)	(130)	120	139
Reserve transfers	(351)	(108)	351	488	252	632
Funding required	(2,766)	(3,005)	(3,210)	(3,543)	(3,438)	(15,962)
Funded by:						
Total transport grant	2,196	2,389	2,598	2,781	2,826	12,790
Precept	20	12	12	12	12	68
Prudential borrowing	550	604	600	750	600	3,104
Total	2,766	3,005	3,210	3,543	3,438	15,962

Table 13B: Operating Plan

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	Plan 2008/09	2009/10	Total
Operating income	2,825	3,037	3,332	3,557	3,756	16,507
Interest income	55	59	65	40	23	242
Total income	2,880	3,096	3,397	3,597	3,779	16,749
Precept	20	12	12	12	12	68
Total transport grant	2,196	2,389	2,598	2,781	2,826	12,790
Total income, transport grant and precept	5,096	5,497	6,007	6,390	6,617	29,607
Operating costs	(4,996)	(5,360)	(5,705)	(6,005)	(6,318)	(28,384)
Debt service	(10)	(58)	(70)	(106)	(151)	(395)
Contingency	0	(26)	(27)	(28)	(28)	(109)
Total operating expenditure	(5,006)	(5,444)	(5,802)	(6,139)	(6,497)	(28,888)
Surplus/(deficit)	90	53	205	251	120	719

Table 13C: Directly managed capital

£m, cash prices	Actual 2005/06	Forecast 2006/07	2007/08	Plan 2008/09	2009/10	Total
Capital expenditure	713	799	1,405	1,752	1,461	6,130
Over-programming	0	(63)	(165)	(173)	(204)	(605)
Capital expenditure (net of over-programming)	713	736	1,240	1,579	1,257	5,525
Less third-party funding	(175)	(185)	(186)	(220)	(165)	(931)
Net capital expenditure	538	551	1,054	1,359	1,092	4,594
Financed by:						
Operating surplus	90	53	205	251	120	719
Borrowings	550	604	600	750	600	3,104
Reserves	(351)	(108)	351	488	252	632
Working capital movement	249	2	(102)	(130)	120	139
Total	538	551	1,054	1,359	1,092	4,594

Table 14: Relationship between Business Plan and Investment Programme

£m	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Capital and PFI/PPP scheme expenditure	1,412	1,466	1,999	2,412	2,117	9,406
Other investment	795	932	873	745	831	4,176
Investment Programme	2,207	2,398	2,872	3,157	2,948	13,582
Over-programming	0	(63)	(165)	(173)	(204)	(605)
Net investment	2,207	2,335	2,707	2,984	2,744	12,977
Less:						
Capital under PPP contracts	(1,007)	(1,094)	(909)	(838)	(909)	(4,757)
Payments to operators/boroughs	(487)	(505)	(558)	(567)	(578)	(2,695)
Total capital expenditure	713	736	1,240	1,579	1,257	5,525

5.10 The TGB scheme is an important part of the Mayor's Transport Strategy because of its importance to the regeneration of east London, which is a priority for national and local government. It is TfL's intention to proceed with procurement of the TGB scheme, subject to the outcome of the planning applications and orders and PFI credit application. This will not be affected by the balance sheet treatment of the TGB scheme.

Financial summary

5.11 The Business Plan continues to have financial balance, in that the costs of operations and the Investment

Programme are fully met from income, grants, secondary revenue, precept and prudential borrowing. This is shown in table 13A.

5.12 The Plan published in November 2005 assumed that reserves would be built up early in the plan period to be drawn down by 2009/10. With increased income, reduced operating costs and some capital underspends in previous years, reserves have increased. Compared to last year's Plan, these reserves are now planned to be utilised to fund new TfL responsibilities and increased investment. This includes the investment in London Overground, LU Power and for tunnel cooling.

- 5.13 The relationship with the Investment Programme is shown in table 14.

Transport Innovation Fund

- 5.14 During the current year, talks have been held with the Government regarding the Transport Innovation Fund (TIF), which was trialled by the DfT in the SR2004 review. This relates to incremental expenditure over and above the settlement and represents a new approach by the DfT in the allocation of its budget above the ongoing baseline adjusted for inflation.
- 5.15 The DfT plans to direct a proportion of its resources into two very high priority objectives: tackling congestion and improving productivity. In the case of productivity, the TIF will be available for

packages and schemes, which, by their nature and/or scale, are expected to make a major contribution to national (and, potentially, international) productivity, but for which existing funds are insufficient. These schemes, including Crossrail, will have benefits and a strategic significance that extend beyond their immediate geographic locality or region to make an impact at a national level. The TIF will also take into account agglomeration and the results of the Eddington Transport Study (due out in November 2006), which has been examining the long-term links between transport and the UK's economic productivity, growth and stability. The TfL scheme currently being considered for funding is a rail gauge enhancement between Gospel Oak and Barking. If this is implemented, it would allow larger freight trains to use the line (as well as the existing passenger services that are being increased from 2007).

TfL has ratings of AA from Standard & Poor's and Fitch and Aa1 from Moody's, just below UK Government ratings.

- 5.16 TfL's TIF submission to the DfT in respect of congestion focuses on three specific projects. Its first proposal seeks to demonstrate the merits of automatic vehicle detection and account-based charges. These would make charges easier to pay, avoid penalty charges through forgetting to register, and open up the possibility for more flexible charges varying, for example, by time of day. If approved, this would concentrate on the proposed western extension, due to come into effect in February 2007.
- 5.17 The second congestion TIF proposal from TfL takes into consideration the Government's commitment to investigate measures to tackle congestion throughout the UK. Given that TfL has the best possible knowledge and experience of plotting future congestion trends, it feels it is in a strong position to examine current and future congestion growth across the whole of London. Any work in that respect would look at the feasibility of a congestion reduction scheme through a local town centre trial of a series of traffic and 'soft' TDM measures. TfL's third proposal would involve trials of distance-based charges and the scope to adjust these to reflect local variations in congestion. It would provide important data on driver responses and public acceptability, as well as providing an operational demonstration of the necessary technology, including the inter-operability of systems and support required for 'back-office' functions.

Risk

- 5.18 To assure delivery of the Business Plan objectives, TfL has to understand the possible risks to achievement and ensure that appropriate actions and resources are in place to manage them and mitigate their impact should they arise.
- 5.19 TfL has in place a strategic risk management policy that has been approved by the Board. Risk management is the responsibility of all managers within TfL. Details of key risks are maintained and updated by all the business units. The top 10–15 significant strategic risks that might prevent TfL achieving the objectives in the Business Plan are captured through a top-down process that involves direct input from all Chief Officers. All strategic risks are the responsibility of the Commissioner, but, in the majority of cases, management of the risk mitigation strategies has been delegated to specific Chief Officers. These strategic mitigation strategies are correlated and coordinated with strategies already identified at the business unit level.
- 5.20 The activities underway, or in development, that will mitigate the risks are also documented. In most cases, the resources needed for these activities are already funded in the Business Plan, but a moderate risk contingency is available where additional action is required.
- 5.21 Information on the operation of the risk management processes, the risks identified and the mitigations being

taken are reported to the TfL Audit Committee. Internal Audit's work focuses on the effective operation of key mitigations and the results of its work are also reported to the Audit Committee. Risk reporting and monitoring is a part of internal management review process.

5.22 TfL's current top strategic risks relate to major projects management, contract management and the quality and quantity of resources available to deliver the Business Plan. There are also key risks relating to use and availability of funding and revenue collection.

To assure delivery of the Business Plan objectives, TfL has to understand the possible risks to achievement and ensure that appropriate actions and resources are in place to manage them and mitigate their impact should they arise.



1 Ealing Broadway
3 West Ruislip
Central Line
12:46

CENTRAL LINE
PLATFORM 1
WESTBOUND



Conclusions

- 6.1 This Business Plan reflects the proven ability of TfL to deliver as a result of the five-year settlement with the Government – both over the past two years and onwards to 2010. This certainty enables a wide-ranging programme of improvements for all types of travel, whether by road, rail, bus, Underground, boat, taxi, coach, bicycle or foot. The Plan also aims to build on the improvements made by TfL over the past six years.
- 6.2 The Plan will support the continued growth of London's economy and population in line with the London Plan. However, economic benefits stretch beyond London, as the Plan will also contribute to the growth of the wider South East and UK economy as a whole. The Plan will help London to remain competitive in the global economy by providing reliable access to workplaces and educational, health and leisure facilities.
- 6.3 The encouragement of the use of public transport and other more sustainable modes of transport at the expense of the car, together with seeking to reduce transport's negative environmental impacts, are also features of this Plan. A fund will be provided specifically to finance CO₂ reduction initiatives. The Plan also includes the proposed London-wide LEZ, which, from 2008, will require HGVs, coaches, taxis and buses to meet Euro III emission standards.
- 6.4 E&I will benefit from the continuation of the 100 per cent wheelchair accessible bus network, more Underground stations with step-free access from street to platform, the road safety programme and measures to reduce crime and the fear of crime.
- 6.5 The Investment Programme is at the heart of this Plan, delivering more than £13bn to upgrade London's transport assets, provide additional capacity and build new links. Benefits are already being delivered from this investment, including the seven-car trains on the Jubilee line and the extension of the DLR to London City Airport. Other future benefits include new trains on the Victoria line from late 2009; further expansion of the bus network (in terms of operated km) by four per cent between 2005/06 and 2009/10; the implementation of the Parliament Square 'public spaces' scheme; and completion by 2010 of 850km out of the planned 900km London Cycle Network.
- 6.6 In terms of new responsibilities, improvements to the former Silverlink Metro service – to be known as the London Overground – will be inaugurated after TfL takes over the franchise in November 2007. These will include: enhanced frequency, improved service and security through the addition of more staff and facilities, Oyster card ticketing, and, as from early 2009, new trains. Other new services in the pipeline are:
- The East London Line extension stage 1, linking Dalston Junction in the north to West Croydon and Crystal Palace in the south (opening in 2010), with the 'Dalston Curve' linking the

line to the North London Line to Highbury and Islington and beyond

- The East London Transit stage 1A (Ilford-Thamesview Estate), opening in 2008 and stage 1 of the Greenwich Waterfront Transit (Abbey Wood-Woolwich-North Greenwich), opening by 2010

6.7 TfL recognises the importance of the boroughs and other stakeholders in the delivery of an improved transport system, and will continue to work closely with them to deliver the real advances in this Plan. TfL will carefully

monitor the progress of the projects mentioned in the Plan, together with their financing.

6.8 The Business Plan shows that targets have been achieved and that much is on course for future delivery. On the financial front, the Plan has balance in that the cost of operations – and the Investment Programme – are fully met from income, grants, secondary income, precept and prudent borrowing. More importantly, recurring income exceeds recurring costs, thus assuring that TfL has a balanced plan on a continuing basis.

The Business Plan will help London to remain competitive in the global economy by providing reliable access to workplaces and educational, health and leisure facilities.





Appendices

Appendix A – Mayoral targets

Table A: Targets for the implementation of the Mayor’s Transport Strategy

Target	
<p>1 Road safety: Target applies at London-wide and individual borough level</p>	<p>TfL and boroughs (obtaining the support of the Police and other members of the Pan-London Road Safety Forum where appropriate) are to achieve:</p> <ul style="list-style-type: none"> • A reduction of 50% in the number of people killed and seriously injured by 2010 for all road users and also separately for pedestrians and cyclists • A reduction of 40% in the numbers of motorcyclists killed and seriously injured by 2010 • A reduction of 60% in the number of children killed or seriously injured by 2010 • A reduction of 25% in the slight casualty rate per 100 million vehicle kilometres by 2010 <p>All targets are compared with the average of 1994–1998. The target applies at London-wide and individual borough level.</p>
<p>2 School road safety: Target applies at London-wide and individual borough level</p>	<p>Boroughs are to review road safety* around all primary and secondary schools in London by 2008.</p> <ul style="list-style-type: none"> • Where the reviews show these to be necessary, 20mph zones or other safety measures must be implemented by 2011 to support achievement of Target 1 (road safety).
<p>3 Bus excess wait time: Target applies at London-wide level</p>	<p>TfL are to achieve bus excess waiting time (EWT) of 1.3 minutes per passenger journey in 2009/10.</p>
<p>4 Borough bus target</p>	<p>Boroughs are to reduce, or maintain at 2005 levels, bus journey times on London Bus Initiative (LBI) bus routes. The target applies at individual borough level.</p>
<p>5 Traffic volumes target applies at London-wide level</p>	<p>TfL and boroughs are to achieve, between 2001 and 2011, an absolute reduction in weekday traffic of 15 per cent in central London, zero growth across the rest of inner London, and a reduction in growth in outer London by a third, with the aim of achieving zero growth in outer London town centres.²¹</p>

21 Outer London town centres include the ‘metropolitan’ town centres as defined by table A1.1 of the London Plan for the purposes of this target, and may also include town centres in that table that the relevant boroughs consider appropriate

Target	
6 General traffic journey time reliability: Target applies at London-wide and individual borough level	TfL and boroughs are to ensure disruption and variability of journey times for general traffic on 'A' roads and busy bus routes are reduced, or not increased, year on year. This target is currently under development and is reliant on IT IS data supplied by the DfT. The DfT has revised the network covered both in London and nationwide. New data is to be issued by the DfT for 2003 and 2004 using a revised methodology. Further validation work will then be required by TfL before the data and target can be finalised.
7 Modal shift: Target applies at London-wide level	TfL and boroughs are to maintain or increase the proportion of personal travel made by means other than car.
8 School travel plans: Target applies at London-wide and individual borough level	Boroughs are to work with schools or groups of schools to review travel to all schools by March 2008, with significant progress having been made by March 2006.* * Travel plans should be developed and implemented where required to support the achievement of Target 7 (modal shift).
9 Compliance: Target applies at London-wide level	Boroughs are to achieve improvements in compliance with parking and loading regulations from a baseline to be agreed between boroughs and TfL. This target is currently under development.
10 Access: Target applies at London-wide level	TfL and boroughs are to achieve year-on-year improvements in the proportion of trips made by equality and inclusion target groups under-represented in the public transport travel market, particularly disabled people and women travelling at night.
11 Taxicard: Target applies at individual borough level	Boroughs are to ensure that their Taxicard scheme conforms to an agreed all-London standard in terms of service quality, eligibility assessment and entitlement by 2006.
12 Walking: Target applies at London-wide level	TfL and boroughs are to achieve an increase of at least 10% in journeys made on foot per person in London between 2001 and 2015.
13 Cycling: Target applies at London-wide level	TfL and boroughs are to achieve an increase of at least 80% in cycling in London between 2001 and 2011.
14 Roads: Target applies at London-wide and individual borough level	TfL and boroughs are to bring all 'A' roads and busy bus routes up to serviceable standard – that is, a UKPMS score of 70 or below – by 2010.

Appendix B – Operating facts

- LU carries more than three million passengers a day – almost one billion a year. It operates about 500 trains in the morning peak period, runs 252 stations (and serves 274), and has more than 14,000 staff as well as vast engineering assets
- London’s bus network is one of the largest and most comprehensive urban transport systems in the world. Each weekday a fleet of more than 8,000 buses carries around six million passengers on more than 700 different routes. This amounts to 1.8 billion passengers a year. The network is structured in such a way that it can respond quickly to changes in London’s growth and spatial pattern
- The DLR is a 31km railway with 38 stations and 94 trains, carrying 54 million passengers a year. It was extended to the London City Airport in December 2005 and a further extension under the River Thames to Woolwich Arsenal is under construction. The Bank-Lewisham route is also being upgraded to accommodate trains with three cars, rather than the two that it has currently
- In February 2007 the central London Congestion Charging zone will be extended to include Kensington and Chelsea and more of the City of Westminster. In the existing zone, congestion has reduced by 30 per cent compared with the period before the charge was introduced in 2003
- Victoria Coach Station handles around 10 million passengers a year travelling on more than 400,000 coaches run by more than 40 operators
- TfL is responsible for the regulation of taxis and private hire vehicles
- Last year the Taxicard scheme provided more than one million trips; and Dial-a-Ride – which has a fleet of 356 minibuses, of which 100 are people carriers, operated by 396 drivers – received more than 1.4 million journey requests. The service has more than 70,000 registered users, of which nearly 25 per cent are wheelchair users
- London River Services manages nine passenger piers from which private boat operators run services. It also part funds the Thames Clipper multi-stop river service
- When TfL takes over the Silverlink Metro franchise from the DfT, it will be responsible for the Richmond-North Woolwich, Willesden Junction-Clapham Junction, Gospel Oak-Barking and Euston-Watford Junction (local) lines. These encompass 50 stations and 90km of track. Every day, 63,000 people use NLR services and a total of 23 million passenger journeys are made each year on its routes
- TfL currently supports more than 150 NLR services each week, as well as late night services on National Rail on New Year’s Eve across London
- TfL is a key stakeholder in the London 2012 Olympic and Paralympic Games. Its remit is to deliver much of the transport infrastructure and service improvements needed to regenerate east London
- The TLRN is a 580km road network managed by TfL. It comprises around five per cent of London’s roads but carries a third of the Capital’s traffic

- TfL supports and funds additional policing by the Metropolitan Police and British Transport Police on buses, the Tube and the National Rail network in London
- London's 4,700 sets of traffic lights are the responsibility of TfL, as is the real-time management of the road network
- Road safety campaigns run by TfL have been so successful in reducing casualties that London now leads the UK and Europe in this respect
- The Croydon Tramlink is a fully accessible, environmentally friendly transport link on which more than 20 million passenger journeys were made in 2005/06
- Cycling initiatives put in place by TfL are intended to broaden the range of people who cycle. The aim, by 2010, is to achieve an 80 per cent increase in the number of trips made compared to 2000
- Walking schemes on the TLRN and borough roads include improvements in access to stations and new pedestrian crossings
- Six hybrid diesel electric buses and three hydrogen fuel cell buses are being trialled